October 11, 1930 Vol. LXXVIII, No. 15

Textile World

Published every Saturday by Bragdon, Lord & Nagle Company,
Division of McGraw-Hill Publishing Company, Inc., New York
Editor: Douglas G. Woolf

A Tribute to The Cotton-Textile Institute

NEXT Wednesday The Cotton-Textile Institute enters its fifth year.

Our greetings to the Institute, and consequently to the industry which created and supports it, take the form of the following résumé of its outstanding accomplishments during the year now closing:

1. Successful promotion of the "55-50" plan, aimed toward greater regularity of employment.

2. Recommendation of the elimination of night employment for women and minors, which appears sure of industry-wide adoption.

3. Interpretation of statistical data, on the basis of which mills have voluntarily effected radical curtailment and have thus avoided what might have been utter demoralization of the market.

4. Development of uniform cost principles, and application of those principles among individual groups, to check the naming of unsound prices.

5. Preparation of the industry's brief on the question of standardized depreciation rates for cotton textile machinery.

6. Cooperation with Association of Cotton Textile Merchants of New York and Converters Association, in steps which led to the formation of the Textile Export Association of the United States—the first real approach to scientific cultivation of foreign markets.

7. Cooperation, with the National Association of Cotton Manufacturers and other organizations, in steps leading toward the formation of the General Arbitration Council of the Cotton Textile Industry, to provide more comprehensive means for conciliation, mediation and arbitration.

8. Further promotion of the use of styled cottons.

9. Continued efforts, in cooperation with Government departments, toward the development of new uses.

●

Looking back four years, we know that many manufacturers expected Walker D. Hines to produce, overnight, a sound cotton textile industry. We know that he could not do this any more than Toscanini, for all his genius, could produce, overnight, a Philharmonic-Symphony Orchestra out of a miscellaneous collection of musicians, some trained, some otherwise.

We know that aggressive and far-seeing leaders have been impatient at the delay in getting things done. We, ourselves, have wished that wide-spread adoption of fundamental truths could have been more speedy.

We know that there first had to be developed a basis of sound industry-thinking on the part of the majority, rather than a minority. That type of thinking has been forthcoming during the last year more than ever before. Witness the enthusiasm and intelligence with which groups in the South have met and considered the industry's status, and then have applied the results of those studies, individually and voluntarily, to the production schedules in their own mills. Witness the spirit with which New England manufacturers rallied to the support of cooperative activities when they were attacked in convention session last spring. Witness the attitude of southern print cloth and narrow sheetings manufacturers on the night work question not many weeks ago.

Consequently, the Institute has been able to capitalize on industry-thinking during the last year more than ever before. The result has been the record of accomplishment outlined above.

●

We believe in the type of activities represented by The Cotton-Textile Institute. We regard those activities as the type which must be followed by all branches of the textile industry. We do not make a fetish of this movement; we recognize it as the only hope for the industry, as at present constituted.

We know that the industry must continue to follow that road—or be completely lost.

Consequently, it is with more than conventional feeling that we congratulate Walker D. Hines, George A. Sloan, the personnel of the Institute organization, its executive committee and board of directors; the American Cotton Manufacturers Association, the National Association of Cotton Manufacturers, and other organizations, which unselfishly subordinated their own associational interests to accomplishment of a common purpose; and—above all—the individual members of the industry who have made, and are making, that accomplishment possible.

The Week in Textiles

Great Statistical Improvement . . .

PRODUCTION of standard cotton cloths during September amounted to 182,385,000 yd., or 45,596,000 yd. per week, according to Association of Cotton Textile Merchants. This was 32.1% less than September, 1929, when the weekly rate was 67,153,000 yd. . . . . Sales during September were 291,980,000 yd., or 160.1% of production. Shipments during the month were 232,975,000 yd., equivalent to 127.7% of production. Stocks on hand at the end of the month amounted to 392,406,000 yd., a decrease of 11.4% during the month. Unfilled orders on Sept. 30 were 285,427,000 yd., an increase of 26.1% during the month. The 50,000,000 yd. reduction in stocks during September is the greatest recorded in any month since the figures were compiled.

Tent-Awning Ad Drive . . .

PROMOTION OF the tent and awning industry through a nation-wide advertising campaign, is projected. The National Tent and Awning Manufacturers Association, in convention at Memphis last Monday, took the plan under consideration and its adoption was forecast by Frank Stevens, president of the organization. . . . . Tentative program calls for expenditure of $300,000, at the rate of $100,000 yearly for three years. Henry C. Adams, association counsel, and United States Senator K. D. McKellar were among those who addressed the convention.

The Business Outlook

"The beginning of the fourth quarter shows no quickening in business tempo other than a moderate expansion of retail trade under the usual stimulus of seasonal influences and low prices. . . . As the slight decline in our index, from 86.4% to 86.3% of normal shows, industrial activity lags behind even seasonal expectations; but this disappointment is tempered by knowledge that volume of consumption is still fairly well maintained and that shelves are gradually being cleared. A belated seasonal expansion in commercial borrowing and currency circulation, together with a relative improvement in residential building, are brighter spots in the general gloom. But the widening circle of political unrest abroad; the continued draft upon the gold reserves of distressed countries by America and France, unwilling or unable to use it; the collapse of the foreign bond market here—all are clouds on the winter horizon." —*The Business Week*

Next Week's Issue

Details of exhibits to be shown at the Southern Textile Exposition, Greenville, S. C., Oct. 20 to 25, will be published in next week's issue of TEXTILE WORLD. This will serve as an accurate guide for visitors at the show. The issue will also contain a report of the convention of the National Association of Cotton Manufacturers at Poland Springs, Me.

Rayon from Natural Gas? . . .

MANUFACTURE OF cellulose from natural gas is reported as result of experiments by Prof. Harold Hibbert, McGill University. The report stated that carbon dioxide and water are the basic materials used in this process. . . . . Making of sugar from these items was discovered in England some time ago and another step by Prof. Hibbert is said to result in cellulose. A further step would result in rayon.

Hosiery Production Increased . . .

ACCORDING TO figures supplied by the Department of Commerce hosiery production increased in August, 1930, as compared with July by about 200,000 doz. prs. . . . . Shipments during August were larger than the previous month, stocks on hand being reduced. Stocks for July were 13,517,642 comparing with 13,126,887 for August. Orders booked during month of August were 4,420,312 comparing with 3,788,892 in July.

Wool Consumption . . .

TOTAL QUANTITY of wool going into manufacture as reported to the Department of Commerce during August, 1930, was 33,761,070 lb., grease equivalent, as compared with 34,682,144 lb., for July, 1930. This compared with 52,644,162 lb., reported for August, 1929. . . . Of the total quantity of wool used during August, 1930, 71.7% was of domestic origin and 28.3% was foreign wool.

"Jobs at Stake" . . .

PART TIME operation in the cotton manufacturing industry has resulted in hardships and even suffering for employees of plants that have been forced to close down or run short time. . . . . Many ignorant and uninformed people have unjustly criticized mill executives for adopting drastic measures that have been necessary to approach a balance between production and consumption in the cotton goods market. To emphasize the soundness of recent curtailment programs, the Cotton Manufacturers Association of South Carolina has

again resorted to advertising space in the newspapers of that state. . . . . It is shown that the price of wide print cloths on Aug. 19 was 14¾c. per pound less than in Aug. 19, 1929, whereas price of middling cotton dropped only 7½c. during the same period. "Thus the widespread effort at curtailment is undertaken that the mills may actually avoid disaster; not only that their operatives may eventually have remunerative employment, but that they may have work at all—for their very jobs are at stake."

How Cheap Is Cotton? . . .

AMERICAN COTTON is selling far below the average relationship with the average price of all commodities in the United States which has prevailed either in recent years or in pre-war years, according to the New York Cotton Exchange Service. . . . . Cotton is down 45% but the average price of all commodities is down only 14% from the 1926-29 base period. With regard to pre-war relationships, cotton is now selling about 19% below the 1913 level, while the average level of all commodities is 20% above 1913.

Camels' Hair Conference . . .

PLANS ARE being made by manufacturers of camels' hair, alpaca and llama fabrics for a trade practice conference with Federal Trade Commission. A circular letter has been sent out by the Wool Institute, Inc., asking manufacturers to signify their approval of such a meeting, and, if a sufficient number reply favorably, it is probable a meeting with Federal Trade Commission will be arranged in New York. . . . . Intention is to place these fabrics upon a more accurate and staple basis.

Activity of Finishers . . .

THE MONTHLY statement by the National Association of Finishers of Cotton Fabrics giving percentage of normal average capacity operated in its industry for the month of September shows fair gains over August. . . . . Figures follow, September being given first: white and dyed, 49%, 37%; fast black, 23%, 17%; logwood black, 29%, 31%; prints, 51%, 41%.

The Textile Outlook

A slight let-up in several branches of the textile field this week has made markets quieter but not changed fundamental conditions. Sellers show resistance to bearish tactics and if raw materials do not slip further, buyers will gain little by delaying. . . . Cottons hold improved statistical position while the raw material touches a new low. Sales of colored goods have become brisker. . . . Wool goods feel benefit of cooler weather for spot orders but future developments are very sluggish. Much interest centers on future of raw wool market, which has lately held firmer than cotton or silk. Buyers are disposed to regard it as too high. . . . Knit goods are moving fairly well with price cuts scattered through the field on various lines. . . . After a brief rally raw silk dropped to new lows around $2. Traders are doubtful on immediate outlook but believe future will bring broader demand by low prices.

Full-Fashioned More Active . . .

FULL-FASHIONED hosiery mills are operating more machinery than for several months. H. C. Aberle Co., Quaker Hosiery Co., and Lehigh Silk Hosiery Mills, Philadelphia, have employed more help and are in better shape so far as orders are concerned than at any time since last spring.

Comments on Rayon Issue

Editor, TEXTILE WORLD:

I have read your very interesting article from your annual rayon issue and I agree with it entirely as I think it hits the nail on the head in regard to the past, present and future of rayon.

Until the present year, the rayon industry has never suffered any serious adversity but I firmly believe that the very trying times the industry has experienced this year will prove to be for the good of future rayon.

I do not think one can expect the general conditions which prevail in the United States and in the world to mend very rapidly, but it seems to me that textiles are turning the corner as there has been quite a little improvement in volume of business during the past six weeks, though I admit that values are not particularly encouraging as yet.

The present over-production of rayon has not shattered our confidence in the future of rayon as we still expect a much larger consumption and we are simply waiting for that time to arrive.

S. A. SALVAGE, *President,* The Viscose Co.

Editor, TEXTILE WORLD:

I have read with a great deal of interest your editorial and introductory article published in the Sept. 27th issue of TEXTILE WORLD, and am frank to say that I agree with you one hundred per cent. There's a great deal of food for thought in these articles, and I hope that all the producers will read them over carefully and consider for a moment their truth.

In fact we have reproduced a large part of your editorial in our *Weekly Digest of Textile News,* sent to all our officers, directors and key men.

J. E. BASSILL, *Vice-President,*
Tubize Chatillon Corp.

Editor, TEXTILE WORLD:

It seems to us that you have covered the field very broadly in a comprehensive manner and we are of the opinion that your remarks are true, and the survey a close estimate.

LEON H. RYAN, *General Manager,*
Delaware Rayon Co.

More Optimism in Textiles

As Definite Improvement Develops

Definite signs of improvement are noted in most branches of the textile industry, with the woolen and worsted division apparently an exception. In cotton products, this improvement is generally regarded as more than purely seasonal and as portending a steady though moderate upswing; but it is considered primarily seasonal in silk and in rayon. Raw cotton and raw silk are at attractive levels but raw wool is not, although many think it is a safe investment. Fairer profit margins are anticipated in most branches. The outlook for the next six months is considered conservatively hopeful, with most factors anticipating a good year in 1931—but a boom is neither expected nor desired. On the whole, and with certain exceptions, there is a more optimistic and firmer attitude in the industry today than has existed for some time.

THE above statement is the most definite summation we can make of the results of a survey conducted by TEXTILE WORLD this week. This investigation included a "sampling" of the opinions of textile manufacturers and selling agents; an analysis of the reports of our market editors; and a synopsis of conditions encountered by our staff representatives in the various textile sections of the country. It can be regarded as no more positive than any similar study but it indicates certain trends. Furthermore, it must be emphasized that this was an investigation, not an attempt to prove anything. We started without definite and preconceived ideas; we ended with as definite thoughts as can be gained from the conflicting opinions and statements of fact encountered in a decentralized industry.

In the following pages we present the "highlights" of the results of this investigation. We shall inject no editorial forecast but certain observations are pertinent:

The defeatist attitude which has characterized the industry in recent years has apparently been dispelled to a considerable extent. There is a firmer attitude on prices; a surer sense of some future objective other than bankruptcy.

Throughout this survey, we encountered a very general realization of the part which constructive cooperative activities are playing in the broader development of textile business. Conversely, and pointing the same moral, we found an equally general realization of the restraining influence which the absence of a sufficiently broad cooperative spirit, particularly in the wool branch, is exerting upon such business development. It is pointed out, for example, that cotton manufacturers are displaying a notably firm price attitude in the face of a declining raw material market—and that this attitude is very definitely the result of constructive activities aimed to remedy certain fundamental defects.

Finally, even the most optimistic manufacturers and selling agents warn against any tendency to overemphasize current improvement. The stage is not set for a boom, they feel, and abnormal inflation would be as fatal as subnormal hopefulness and determination. Above all, they are anxious that there be no "false dawn"; no let-up in the pursuit of coordinated progress.

Improvement in Cottons More than Seasonal

VERY few negative votes were cast in the cotton industry in answer to the question: "Do you note signs of improvement?" Less convincing were the answers to the question as to whether the improvement was more than seasonal, but the majority opinion inclined toward the belief that a definite upswing has started. Practically all agreed that raw cotton is at an attractive, even a "bargain," level. Fairly general expectation of better profit margins was voiced, apparently based on belief that raw material values had been liquidated and that there is less disposition to take on unprofitable business. Full recovery is not generally expected during the next six months but all expect marked progress within a year, and one man went so far as to predict that 1931 would be the best year in the history of the industry. And all emphasized the importance of maintenance of constructive activities.

Here is a brief summary of an investigation in the New England section:

Slightly better than seasonal improvement in cotton goods recently is the verdict revealed by cross-sectioning the opinions of New England mill men. Unanimity of opinion, however, is lacking, some stating that business is as bad as ever while others say they are well satisfied with conditions.

Raw cotton is almost universally regarded as a bargain at present levels and quite a number of mills have covered from 30% to 50% of their anticipated requirements for periods ranging up to three years. Many other mills, however, while they believe cotton to be cheap, do not feel justified in making large forward commitments until they can definitely see better business ahead of them.

Taking the situation as a whole, the worst is regarded as being over with the next six months showing difficulties but progress.

Our cotton yarn editor reports:

Sales and specifications of cotton yarns have improved more than seasonally since the first of September. Dealers in Philadelphia and New York assert that specifications on old contracts have improved approximately 30% in September as compared with August while new business has increased from 15 to 20% during the same period.

One of the largest cotton yarn selling agencies reported that they did 19½% more business in Sept., 1930, than in the same month a year ago in poundage. This is definite proof

that expansion in trading in this field has been more than seasonal this year, numerous other selling houses making similar reports. It has been noticeable that expansion in cotton yarn sales has been more apparent in weaving yarns than in knitting; improvement in the latter should come along this month.

Our southern editor comments as follows on outlook in cotton yarn trade:

Combed yarn manufacturers insist that their profit margins have vanished and that on present basis of raw cotton they are merely swapping dollars on their transactions. The trend during the next six months in sales yarn trade depends largely upon continued balancing of production with demand and basing price quotations on sound cost computations.

Finally, we print a few representative opinions from men in the industry:

Floyd W. Jefferson, Iselin-Jefferson Co., New York:

"In Worth Street we have noticed marked signs of improvement. I feel that this is at least partially a seasonal improvement, nevertheless there are signs which indicate a definite upswing and there is decidedly a better feeling.

"It is probably true that there has been large overproduction in almost all industries and I feel that cotton textiles have not suffered in this respect nearly so much as others because figures indicate that over a period of several years the ratio of shipment to total production has been approximately 98.3%.

"The curtailment program adopted by the print cloth mills has had a stabilizing effect and during the past few weeks the sales of print cloths have been decidedly larger than production but I have always regarded curtailment programs, though necessary, as negative rather than positive cures.

"I believe that, if a mill had the resources to purchase at today's levels a two year supply of cotton, and if they warehoused this cotton and used it for their normal production over the next two years, they would have a decided advantage over any mill which bought cotton periodically.

"On the question of fairer profit margins for manufacturers, I am inclined to think that we can expect to realize better margins because necessity is forcing mills to pay more attention to this feature and because the Institute and various trade associations and various committees are really doing effective work and some constructive plans have been put into effect in connection with budgeted control of production and sensible pricing of merchandise."

Leavelle McCampbell, McCampbell & Co., Inc., New York:

"I see definite signs of improvement in our branch of the textile industry. This improvement, in my opinion, is slightly above seasonal.

"I consider the present price on cotton a bargain, and, in view of the supply of and demand for this commodity, I do not believe that this bargain will be snatched away from us very quickly.

"We are already participating in improved margins. They are not as yet satisfactory.

"If the mills go through on eliminating night work, I look for *real* prosperity in the southern section of the industry."

George S. Harris, Hunter Mfg. & Commission Co., Atlanta, Ga.:

"We have had some improvement in the textile industry as to volume of sales which, at the moment, shows some signs of checking up. My opinion is that we have started a slow upswing which we do not expect to develop an unbroken curve.

"I certainly consider present cotton prices to be in the class of bargains. I shall not be surprised if we see lower prices which I shall expect to be temporary. Cotton today is very definitely well below cost of production and when any commodity like cotton is in this position it has always proven to be cheap.

"As to your question with reference to fairer profit margin I would apply the same principle—present profit margins are in red figures which, of course, in time, must and will be changed."

B. B. Gossett, president, Chadwick-Hoskins Co., Charlotte, N. C.:

"About a couple of weeks ago I was of the opinion that the recent improvement was the beginning of a definite and gradual upswing but in the light of developments in the past ten days, I find myself wondering if this is true or is the improvement merely seasonal. Only time will tell. I do very definitely feel, however, that if the industry has learned its lesson, as I believe it has, and will continue a policy of balancing production to present and prospective demand, that we can count on at least holding our own until after the turn of the year when I fully expect to see a gradual and steady improvement and believe the chances are reasonably good that the year 1931 may prove to be one of the best in the history of the industry under anything like normal business conditions.

"After all, the most encouraging phase of the situation is the fact that the 55-50 plan is now operative throughout practically the entire industry and this coupled with the proposal to eliminate women and minors from night operations, which I am confident will go through with a bang, inevitably means that entirely apart from emergency curtailment, a way will have been found to control production to a point that will in my judgment insure stability of operations and profits for a long time to come.

"As to cotton, I think it is on a sound investment basis. It is possible, however, that prices may work somewhat lower for the next two or three weeks. Even so, I think purchases initiated at this time on a scale-down basis will eventually prove highly attractive."

B. E. Geer, treasurer, Judson Mills, Greenville, S. C.

"There has been some improvement in business . . . . Whether this upswing is seasonal or not, I cannot tell. Past cycles in business would lead us to believe that at least the time has arrived when we should expect gradual improvement over a long period. But when I think of the low prices of all commodities that go into food and raiment and shelter, I am wondering whether the summer of 1931 may not be worse than the summer of 1930. Let us hope that the dark hour is just before day."

Fred A. Rakestraw, Hyde-Rakestraw Co., Philadelphia:

"The improvement that we have had in the yarn business during the past four weeks, to my mind, is partly seasonal and partly the result of a definite recovery from the business depression.

"There has been a distinct and decided change in the mental attitude toward the market; with very few exceptions our customers have told us that things were better with them, and this is a favorable sign. It was absolutely necessary for business men to change their mental attitude before any real improvement could be expected. In addition to this there has been a considerable amount of forward buying by a number of the very large and responsible yarn consumers.

"We feel that the textile business will slowly move up grade."

L. W. Clark, general manager, Carolina Cotton & Woolen Mills Co., Spray, N. C.:

"I cannot brag about our fall business. We are receiving orders daily for seasonable goods but they are small and in view of the fact that early orders also were below normal, we reasonably should be getting more business just now than seems to be forthcoming.

"Raw material prices look low enough to encourage purchasing more than a normal volume with little risk.

"A fairer margin of profits to manufacturers will not be

possible until a greater number have learned the lesson that it is bad business to sell goods below cost. It may take another year to accomplish this result. I am afraid we are all in for another year of meager profits."

Stuart W. Cramer, president, Cramerton Mills, Inc., Cramerton, N. C.

Mr. Cramer stated to a correspondent of TEXTILE WORLD that he is pleased with the sure, steady progress that is made in the textile industry as compared with the depressed period it is just emerging from. There is, he says, a steady increase in demand for textile products. He further said textile men did not want the improvement to come too fast or reach any boom stage.

Depressed Attitude Prevails in Wool Goods

LESS hopeful are reports from the woolen and worsted division. Improvement is reported in some lines but there seems to be no feeling that, where it exists, it is any better than seasonal. There is no belief that raw wool prices are at "bargain" levels; however, there is a fairly general impression that present quotations offer little risk. Nor is much hope held out for an improved profit situation in the next few months. Gradual improvement is hoped for, and in certain quarters a sounder position is expected within a year, but a broader cooperative spirit is essential.

Here is a summary of a survey made in the New England woolen and worsted sections:

Wool goods have not shown the same improvement as cotton goods, although this may be due to the fact that they did not sink quite as low during August. Men's wear lags behind what might seasonably be expected, although women's wear shows more promise than was generally anticipated. Raw wool is regarded as being low but not on the bargain counter as compared with cotton and silk. Mills are purchasing more than previously, but conservatism still reigns. Altogether the next six months are not regarded as easy ones, but better than average weather may be looked for after the storms.

Our worsted yarn editor reports:

There has been substantial improvement in worsted yarn sales during the last six weeks, a number of spinners enjoying the best operating schedules that month of the present year. New business has recently (last two weeks) been arriving in slightly smaller volume but outside influences such as holidays have been blamed for this.

Spinners are more optimistic but most of them feel that improvement in demand has been largely seasonal and they do not expect buying to continue at the September rate for a long period.

Representative opinions follow:

Louis Galle, vice-president and general manager, Jules Desurmont Worsted Co., Woonsocket, R. I.:

"Improvement is noted in some lines. Our business is always seasonal. Owing to the fact that stocks of goods in stores and elsewhere are low and owing to hand-to-mouth buying policy, we expect steady demand to continue with increase of operations after the turn of the year.

"As to profits, naturally increase of demand should bring larger returns, present returns being on too close a margin.

"Present prices of material are no bargain; however, readjustment of value in the same the last eighteen months seems to have reached a point where operations present very little risks."

A factor in the woolen and worsted industry:

"The recent improvement in the woolen and worsted industry has been due more to the reduction of stocks than to increased orders.

"The ability of the Federal Farm Board to peg the price of wool, temporarily at least, has been demonstrated. Whether the present raw material prices are a bargain depends, of course, entirely on whether or not business in general recovers.

"A fairer profit margin for manufacturers in this industry cannot be obtained until the need for cooperative action is more generally understood."

A worsted manufacturer:

"Men's wear, although at the start of the new season, does not indicate any improvement. We say that because of the fact that normally we would have been well under way in production of sample pieces for the clothing trade. They have put off their buying so long this season that it's going to be interesting to see how it works out. We are having a wonderful distribution and we feel we are getting our share of the business, but that's not saying much. In the women's wear end we have enjoyed a good and profitable business on some dress fabrics, and we believe that the spring business in the coating field will be fair.

"We do not consider present raw material prices a 'bargain'. In general we believe that the bottom has nearly been reached, and if we took wool as a law unto itself, we might say that prices were as low as they would go; in fact, lower than the producers can at the present time produce and earn a satisfactory living. However, due to world conditions and due to the world situation of commodity prices in general, wool may be depressed somewhat further, although, we certainly do think that if it goes much lower there will be a decided reaction some time during the course of the next year or two."

Silk Future Depends on the Raw Material

SUCH improvement as has been noted in the silk division of the industry is regarded as primarily seasonal. The demoralizing effect of the raw material situation is reflected in opinions expressed in this branch. Naturally, it is felt that raw silk prices are extremely low but mill men will not commit themselves to expectation of sharp advances. Possibility of better profit situation is held to depend upon degree of stability of raw material. Difference of opinion exists as to general outlook for next six months.

The following two opinions have been selected as being fairly representative:

Paul Hyde Bonner, vice-president, Stehlisilks Corp., New York:

"I do note signs of improvement in the silk branch of the textile industry. I feel that primarily this improvement is seasonal.

"I do feel that raw silk is at bargain prices although I do not believe that the upswing will be much beyond 25c. of present levels for some time to come.

"If manufacturers have bought silk far ahead at low levels their chances of making a fair margin of profit for the future are excellent.

"I should hazard a guess that business would remain firm and fairly active until the end of February but after that I greatly fear that we may have a return of depression."

Paolino Gerli, of E. Gerli & Co., former president of National Raw Silk Exchange:

"Current conditions of the raw silk market make forecasting difficult. The fall sales rise was only seasonal, and cannot be interpreted as indicating industrial improvement. We look for an upswing, but it will be slow. Now there is good

buying, and it probably will ease off toward the end of the year. The chances are spring will bring fair business. At present one point is outstanding: If current raw silk levels are maintained, it will mean good business for us eventually, as manufacturers will be enabled to offer excellent quality in silk goods, at low prices. Personally, I am optimistic for silk. I see 1931 as promising a steady improvement."

Improvement in Most Branches of Knit Goods

THE situation in the knit goods division is naturally complex since it embraces so many different types of products. In general, improvement is noted, although this is not regarded as much more than seasonal in hosiery or outerwear, but somewhat above seasonal in underwear. Here, too, it is felt that future possibilities as to profits depend upon the raw material factor. For the next six months the outlook seems to be uncertain in hosiery and outerwear but holding prospect for steady though gradual improvement in underwear. A synopsis of survey conducted by our knit goods editor follows:

Hosiery: Sales show an increase, but this is more seasonal than anything else. Department stores continue their policy of cutting stocks to irreducible minimum, and are buying very hesitantly. There is a slightly better tone in the Western States. Raw materials would be a bargain if they were more stable; hosiery mills need raw silk and are dubious on advance covering because of the price uncertainty. however, they are gaining confidence; some of the big-volume mills have begun to buy ahead. The outlook for the next six months is uncertain.

Underwear: Sales are slightly above normal, indicating a more than seasonal improvement, but mills do not look for a quick pick-up. The low levels of silk and rayon have encouraged manufacturers, and if store confidence improved, the outlook might be better for spring. Heavyweight underwear is particularly firm at present. Careful watch on production has put underwear mills in a comparatively good position.

Outerwear: Sweaters and knitted dresses, the chief outerwear lines for fall, are selling very well, but this is no more than seasonal. The trade does not see any actual signs of an industrial come-back, and no one looks for concrete improvement before next spring.

Our southern editor comments as follows:

Leading southern hosiery manufacturers report stimulation of business which is more or less seasonal but evidence points toward gradual improvement during next few months. Many well informed knitters and cotton yarn processors feel present raw material prices are on bargain basis but are somewhat hesitant because they likewise thought so several weeks ago.

Here are a few opinions from the field:

E. N. Campe, president, The Campe Corp., New York:

"Being an optimist I cannot regard the present situation as being purely seasonal. I believe that the upswing will carry moderately along throughout the fall. I do consider raw materials a purchase at prevailing prices."

John M. Botts, president, Harrington & Waring, New York:

"I do note signs of improvement in our branch of the textile industry. I do feel that this improvement is not only seasonal, but that it portends a continued up-swing, and from my experience in past situations that were not unlike the present, I believe this up-swing, while more or less jumpy, will be practically continuous. I do consider raw materials, of which I have any knowledge at all, at present prices a bargain, regardless of the possibility of still further recession. I do believe that the purchase of silk today is not a speculation, but an investment. I anticipate a fairer margin of profit during the next six months. I do believe that what we need is higher wages and shorter hours. That belief I have maintained for 30 years, and expect to continue in that belief for years to come."

A hosiery manufacturer:

"There is an improvement in the hosiery business but, in my estimation, it is purely seasonal and does not portend a definite upswing.

"Manufacturers of full-fashioned hosiery have, for months, been producing almost as much as has been consumed, with the result that the stocks on hand have not declined very much. As long as these are hanging over the market there will not be a definite upswing in the full-fashioned end of the hosiery business."

Ellery B. Gordon, executive secretary of the National Knitted Outerwear Association said:

"I hesitate to answer these questions arbitrarily, but certain things stand out in my mind. It seems to me we have reached the bottom of the depression and that we will stay there only long enough to get momentum for the upswing. We look for a holiday business of fair proportions but we cannot expect it to come up to last year in sales."

A knitted outerwear manufacturer:

"Knitted outerwear is having an unusually good fall in the knit dress division. Otherwise activity is below the normal fall demand. Although there is evidence of improvement, yet it does not seem better than the normal seasonal pick-up.

"Raw material prices seem very low, but no prices are bargains unless the turnover is insured within ordinary time limits. We are not optimistic as to any marked recovery in the next six months. However, we have complete faith in the ultimate recovery to normal business activity."

Some Progress Is Being Made in Rayon

IT IS inevitable that the rayon market could not make a quick recovery from the demoralization which has characterized it during most of the year. It is true that improvement has been noted recently but on the whole this is not regarded as notably more than seasonal. The industry does not anticipate a complete comback in less than a year's time. It is encouraging to note, however, that apparently very real thought is being given to the causes of the market chaos this year and to the steps which must be taken if similar developments are to be averted in the future.

Our rayon editor reports:

Rayon yarn demand during recent weeks marked an upswing, with buyers more confident. The increased turnover is more seasonal than anything else; one leading producer estimated that 75% of the increase was seasonal and 25% might be attributed to the return to normal. That estimate is in key with reports of other companies; fall sales to date are a bit better than normal in proportion to summer sales. The industry looks for good buying for the next few weeks, but as September-October is the best season of the year, usually, this in itself does not connote any great strengthening. Conservatively, the outlook is: a falling off in December, which may be slightly more than usual for that month, but which probably would indicate improvement when measured against the exceptional falling-off last summer. Most producers now are selling full output, which demand is not sufficient to assimilate the surplus in the industry, estimated roughly at 20,000,000 lb.

A New Method for
Measuring and Classifying Raw-

By Warren P. Seem
Julius Kayser & Co.

NATURE as applied to raw silk is generally understood to be a term representing the inherent qualities of the fiber. Nature is usually classified as hard, medium, and soft. These classifications are judged by the degree of hardness, resiliency or hand, cohesion of the thread, and condition of the ends of the thread when broken. The classification is entirely subject to the human equation and indicates only the judgment of the inspector. Nature derived its nomenclature from the fact that silk high in its inherent qualities is generally a thread hard to the sense of touch, and silk low in nature comprises a thread soft to the sense of touch, due to various degrees of molecular cohesion of the sericin.

The inherent qualities of raw silk are strength, elongation, cohesion, and hand. (Hand is later studied as elasticity.) Studies of these qualities for the purpose of developing a mechanical nature test have covered a period of over fifteen years and have given rise to the following conclusions:

1. The strength test shows that all silk high in strength is also high in nature, but not all silk low in strength is low in nature. This is due to the fact that occasionally the sericin is partly or completely broken down and shows little or no strength, while the fibroin is found to be 100% strong and of a good hand.

2. Cohesion tests made on cocoons and reeled thread developed the facts that silk high in cohesion is always high in nature; on the other hand, silk low in cohesion on the reeled thread is not always low in nature, as the cohesion is sometimes low due to improper reeling methods affecting the agglutination of the cocoon fibers, although the molecular cohesion is high.

3. Studies made of the coefficients of strength and elongation show that on multiple threads the elongation is affected by threads brittle against pull, these breaking before the test reacches the average elastic limit.

4. Studies made of the elongation and elasticity at a constant tension of 1.4 grams per denier on a wet thread give the relations most consistent with actual mill results. However, some disagreement was found which was traced to the human element entering into the test as it was made. This was corrected by building a machine that is entirely automatic in its operations.

5. Studies of the rational limits of the elongation results at a fixed tension, together with the coefficients of strength, elasticity, and the effect of using the test skeins wet on the molecular cohesion indicate clearly that a true index of nature is only found by considering all these elements.

As a result of these conclusions we proceeded to formulate a method, based on a diagram, for determining these combined properties in one test. In the method we have adopted the test skeins are dipped in water and tested for the following reasons: (1) to prevent any brittle threads breaking and affecting the results; (2) to assure a constant moisture condition of the threads under tension; and (3) to overcome the sericin equation—the firmer the molecules of the sericin cohere, the harder is the thread and the less plastic it becomes when dipped in water; conversely, the less the molecules cohere, the more plastic is the thread when wet.

At a tension of 1.4 grams per denier the wet thread elongates about three times as much as the dry. At the breaking stress the wet elongates about twice as much as the dry. At the breaking stress, the thread tested wet loses nearly all of the strength of the sericin. An average of nearly 400 tests show that the loss in strength is just about equal to the average raw boil-off. At a tension of 1.4 grams per denier the sericin of the hard-nature silk does not break down as much as the soft, and the elongation is different. These characteristics present the facts upon which is formulated a method of testing nature with a wet skein, under a stress strain of 1.4 grams per denier.

The machine used in the test is built by the H. L. Scott Co., Inc., according to specification developed in the laboratory of Julius Kayser & Co. It is called the "inclined-plane serigraph." The machine measures

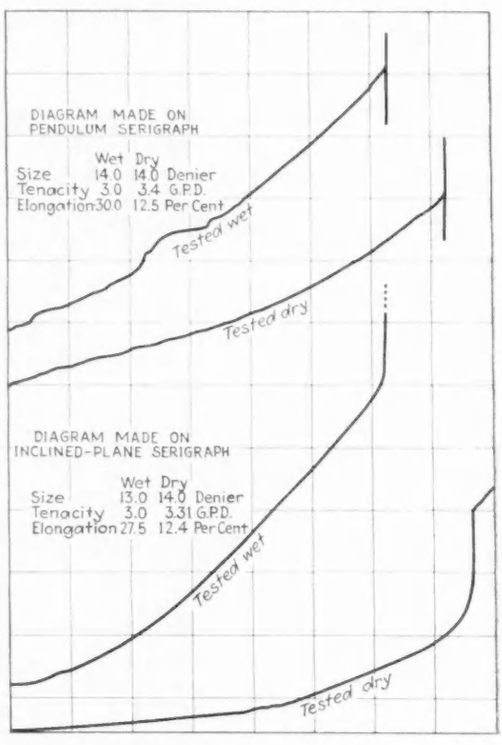


Fig. 3. Comparative diagrams made on pendulum serigraph and inclined-plane machine

Silk Nature

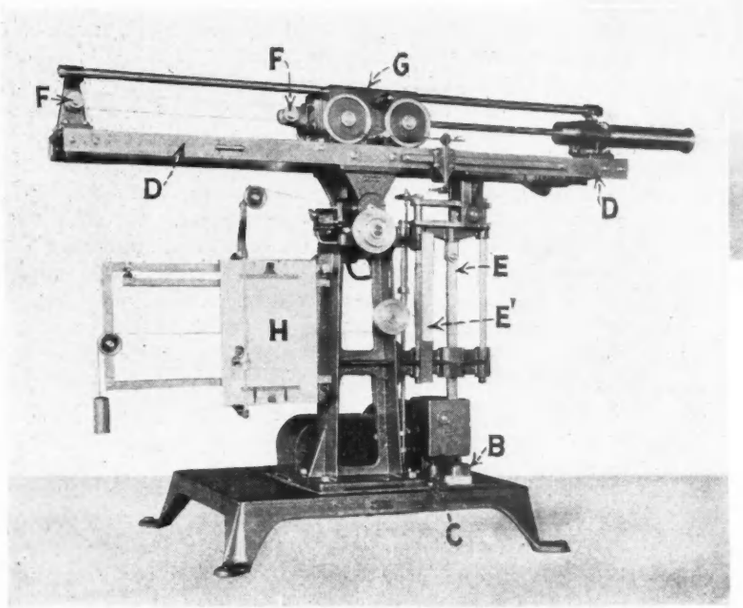


Fig. 1. Front view of inclined-plane serigraph for measuring raw-silk nature

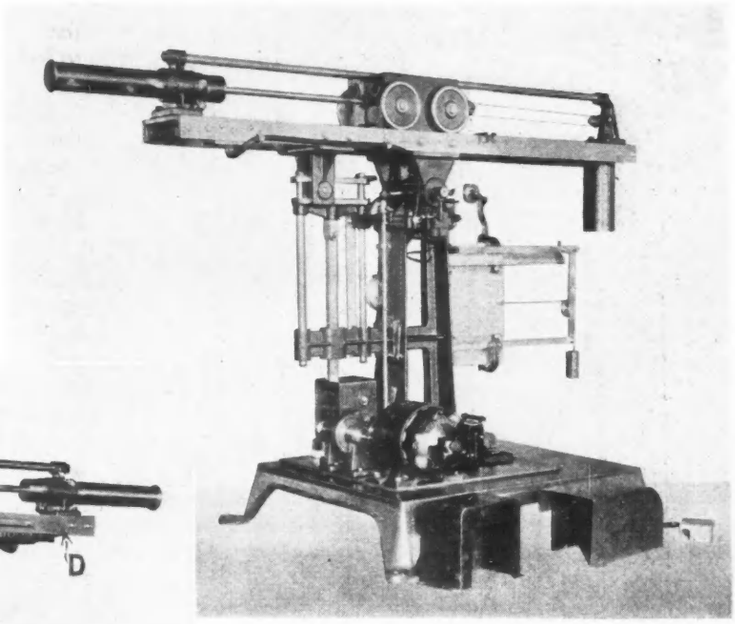


Fig. 2. Rear view of inclined-plane serigraph showing motor and control

elongation, elasticity, fatigue, and nature at a standard tension; and it also measures strength and elongation at the breaking stress.

In Fig. 1 is illustrated the front view of the machine and on Fig. 2 the rear view showing motor and control. In Fig. 1 *A* indicates the contact switch for fatigue test; *B*, electric switch with which to turn on the current; *C*, contact switch which starts the machine; *D*, inclined plane that is drawn downward by a gear rack *E* moved by worm gears directly connected to the motor; *E'*, scale showing weight applied which is controlled by the angle of plane; this has a range from 0 to 25 kilograms and is sensitive to ¼ kilogram; *FF*, posts upon which the test skeins are placed; *G*, carriage that moves downward as the plane inclines and elongates the skein; and *H*, recording chart giving the curve of the load strain and the comeback when the tension is released.

Method of Testing

To make the test samples are wound from 40 skeins, extracting ten skeins from each of four bales of a ten-bale lot. Five skeins, 45 meters long, are reeled from a five-bobbin creel. The bobbins are changed after 22½ yards of five thread is reeled, and the test skeins completed with the same length of the second five. The five test skeins thus represent 225 meters of single thread, 22½ meters from each of ten skeins extracted from a bale. Twenty test skeins are made from a lot of ten bales.

The skeins are weighed in deniers on a sizing quadrant, dipped in water and the surplus water wiped off by hand, and fastened at once in the machine by hanging the skeins over posts *FF*. The machine is then started by pressing the contact switch *C* which moves the inclined plane downward at the rate of 8 in. per min. and gradually adds the load until it reaches the standard load strain; the machine then automatically reverses itself and returns to zero. The chart *H* is next moved up one space, and a second test is made. In like manner, five tests are made on one chart.

The distinctive feature of the inclined-plane tension is that the load is applied steadily as actuated by the motor, whereas on the pendulum type of serigraph the load is applied in proportion to the elongation of the sample, and an irregular curve is often made, Fig. 3.

Diagrams illustrated in Fig. 3 were all made on the same silk. The upper diagram gives the results on silk when tested wet on the pendulum serigraph and the next under it shows the results on silk tested dry. The two lower diagrams were made on the inclined-plane serigraph, the silk being tested wet and dry as marked. It should be noted that the tenacity was practically alike on both machines. On the other hand the elongation at breaking stress varies. In the dry test elongation is 4.17% higher and in the wet test 5.3% higher on the pendulum serigraph than on the inclined-plane serigraph. Again, the curve on the inclined-plane machine is more regular than that on the pendulum serigraph. The irregular curve indicates irregular tension.

Nature is determined by measuring the area in square centimeters within the diagram, as shown in Fig. 4. This area appears to comprise the coefficients of strength, elongation, elasticity, and the molecular cohesion, as found when raw silk is elongated wet at a constant tension of 1.4 grams per denier.

Strength is calculated from diagram *B* by measuring the abscissa *A* to *A* with a scale graduated in kilograms.

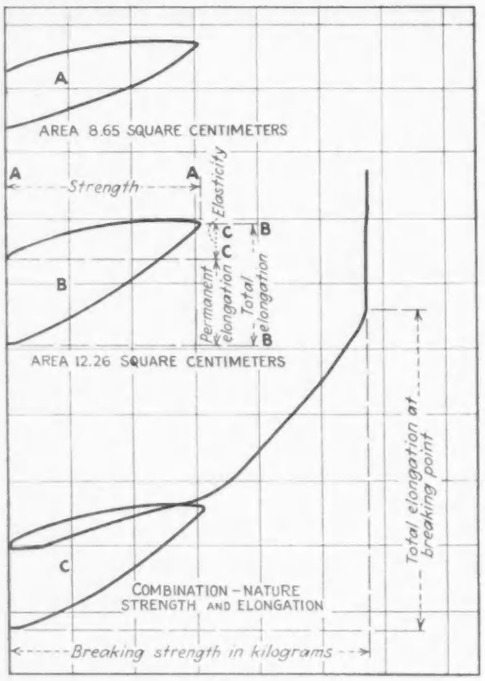


Fig. 4. Diagrams showing method of making nature interpretation

Elongation on diagram *B* is found by measuring the ordinate *B* to *B* with a scale graduated in per cent. This quality regulates the drop and rise of the under curve which increases or decreases as the silk elongates.

Elasticity on diagram *B* is measured by the ordinate *C* to *C* with a scale graduated in per cent. The per cent of elasticity is determined by dividing the elasticity by the total elongation. The molecular cohesion is the property upon which strength, elongation, and elasticity are more or less dependent; therefore as the molecules resist the elongation, they increase the comeback and influence the area within the diagram.

The four qualities—strength, elongation, elasticity, and molecular cohesion—affect the diagram differently; therefore, since the test is always made under a standard tension, the area of the diagram appears to measure inversely the coefficients of all qualities and a combined value, called mature, is indicated. See diagram *B* for very hard nature, and diagram *C* for very soft nature. Two years of practical application of the method of measuring nature at a standard tension of 1.4 grams per denier have proved the merits of the system.

As the size influences the area, it is based on 14-denier silk and other sizes are converted to the 14-denier standard by a multiplying factor, based on the relation to the size. The following table classifies the area into different grades of nature: (The class is given as a general reference to the old classification.)

Centimeters	Grade	Per Cent	Class
Under 9	A	95	Very Hard
9 to 10	B	90–84	Hard
10 to 11	C	85–89	Soft
Over 11	D	80–84	Very soft

American throwsters, dyers, weavers, and knitters recognize the influences of different degrees of nature in the various processes, to variable extents as follows:

1. In throwing, nature influences the soaking treatment for tram, organzine, grenadine, crepe, etc., and setting of twist and quality of the thrown thread.

2. In boiling off, dyeing, and finishing, it influences the boiling-off time, absorption of dyestuff, tendency to lousiness and fuzziness, results of tin weighting, abrasion of thread, and hand of the fabric.

3. In weaving the skein-dyed thread, it influences the tendency towards splitting, the formation of silk line in the loom, and the hand and cover of the fabric.

4. In crepe, it influences the tendency of the yarn to kink and the fabric to shrink.

5. In gum knitting, it influences the length of stockings, sleaziness, absorption of wetting emulsion, conditioning of the thread, and the susceptibility to abrasion in drum dyeing.

These variable results cause constant trouble and losses and emphasize the need of a standard method to measure and classify this property.

In studying the relation between the elasticity of rayon and raw silk, using a stress strain of 1.4 grams per denier for raw silk and 0.5 gram per denier for rayon, it is found that rayon shows within 10% of the elasticity of real silk. However, from actual wearing results it is generally known that rayon does not have the comeback or resiliency that silk has. It was found then that repeated tests on the same skein at the stress strain named showed great differences between silk and rayon and between various grades of rayon. The repeated elongation test at a fixed tension is called the fatigue test.

The fatigue measurement is made by repeating the nature test until the thread breaks. See Fig. 5 for results on silk and rayon. Silk has been tested at a strain of 1.4 grams per denier and rayon at 0.5 gram per denier. The general results on raw silk were stopped at 800 repeats. On rayon we find results generally varying from 7 to 250 repeats.

Sufficient studies have not as yet been made to enable us to give a table of relative values. The value of the fatigue test is found in showing the relation between the comeback of different materials.

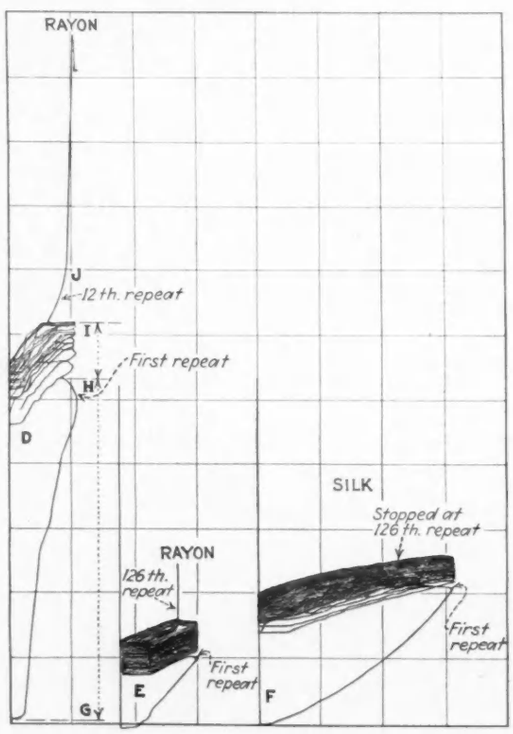


Fig. 5. Fatigue measurements on silk and rayon

Southern Manufacturers Solidly Support Institute's Night Work Proposal

From Southern Office, TEXTILE WORLD

ANTICIPATING favorable action upon the resolution prohibiting the employment of women and minors under 18 years of age in the cotton manufacturing industry at the annual meeting of The Cotton-Textile Institute, in New York next Wednesday, southern mill executives are solidly behind the proposal, and, with the exception of a skeptical note here and there, unanimous endorsement of the recommendation made by directors of the Institute is voiced in southern mill circles.

Several manufacturers in the print cloth and narrow sheeting group, who were the first to announce their intention of abolishing night operation for women and minors, have already discontinued their night shifts, while others are taking immediate steps to follow through with similar action. Typical of sentiment in this group is the message from Emslie Nicholson, treasurer, Monarch Mills, Union, S. C., which is, as follows:

"Have already discontinued night work at all our plants and do not contemplate any resumption of same. We felt that it was the best thing to do for good of all interests concerned."

Without question the action of the executive committee and the board of directors of the Institute in sponsoring, first, the 55-50 maximum working week plan and, more recently, the current movement to eliminate women and minors under eighteen years of age from night operation, has greatly strengthened the Institute's position with many executives who were only lukewarm in their attitude toward its activities. The following statement from T. Scott Roberts, president and treasurer, Adelaide Mills, Anniston, Ala., and president of the Alabama Cotton Manufacturers Association, is significant in this respect:

"We are joining the Institute in appreciation of the action taken and believe the various State legislatures will pass laws in conformity with the resolution as fast as they meet, but hope mills will suspend night operations at once and thereby realize the constructive benefit to all involved in the industry that much earlier."

Support of All Cotton Mills Enlisted

It is understood that an invitation has been extended to mills throughout the country to be represented at the annual meeting in New York, Oct. 15, whether they are members of the Institute or not, with the idea of enlisting the support of non-member mills to this movement, which many already accept as sound and constructive.

The procedure employed in successfully initiating and placing into effect the 55-50 plan in all probability will be followed in translating the more recent resolution into terms of definite action. As reported last week in these columns, more than 60 manufacturers of the carded sales yarn group, operating mills in various sections of the South, met in Charlotte, N. C., Sept. 26, and gave their unqualified approval to the proposal.

In addition to W. D. Anderson, B. B. Gossett, and Donald Comer, whose views on this subject have already been quoted in TEXTILE WORLD, two of the most enthusiastic supporters of the resolution in the Charlotte meeting were Capt. A. M. Fairley, of Laurinburg, N. C., and A. Alex Shuford, Hickory, N. C. The latter expressed his views to our southern editor, as follows:

"Thank you for the opportunity of endorsing what, in my opinion, is the panacea of the present shortcomings of the industry, and which should come nearer than anything to raise wages, increase profits and give to the industry the national standing it should have. Absolute cooperation is necessary in order for plan to be successful. My belief is that strong public sentiment is the vital force which would bring this condition."

No less optimistic was the sentiment of Capt. Fairley, who said:

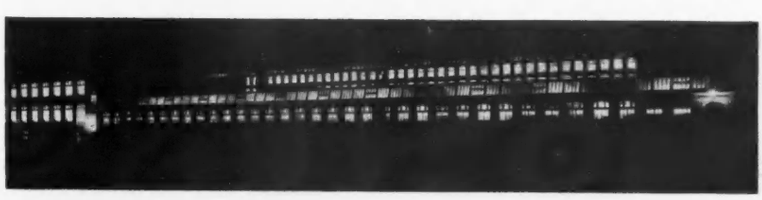
"I am heartily in favor of the Institute resolution opposing night operation for women and minors under 18. This is the most constructive move the Institute has made and I believe it will be carried out as adopted by the carded yarn group in Charlotte and also by the print cloth group in Greenville. This should materially improve the market."

Employment Problem Easing

One of the most frequent objections raised by those who have evidenced a doubtful attitude toward the movement to eliminate night shifts has been that displaced employees would suffer a tremendous hardship. This feeling on the part of skeptical mill officials has been, for the most part, entirely sincere and no doubt resulted in the selection of March 1, 1931, rather than a nearer date, as the time-limit within which the plan will become 100% effective.

The trend of labor migration has already begun, and we are witnessing an exodus from the mills back to southern farms. In Cleveland county (N. C.) recently a welfare official stated that for the first time in

(Continued on page 73)



Miscellaneous Calculations of Use to Cotton Mills

By H. D. Martin

CALCULATIONS explained in the accompanying article include those for finding the satisfactory breaking strength of various sizes of yarn made of different staples, finding variations by the deviation method, computing number of looms per battery hand, converting rayon counts to cotton counts, and finding the quantities of differently priced cottons required for making a mixture of a given price.

COTTON manufacturers have never lacked some good calculation rules by which to obtain fairly accurate information regarding their work. The tendency toward more rigid specifications and the narrowing margins of profit have created a need for greater accuracy, however, with the result that improved methods of calculation are constantly being sought. Some methods which the writer has found accurate and useful he explains in this article.

Calculating the satisfactory strength of any yarn number made from any length of cotton staple, whether carded or combed, has been made a science by the engineering firm of F. P. Sheldon & Son. This concern has given us the best system available for computing the strength of yarns. The system has been laid out after a long series of carefully made tests, and it would seem to be the last word in scientific research in this line.

One per cent is added for each number above 28s, and one per cent is deducted for each number below 28s. Eleven per cent is added for every $\frac{1}{16}$ in. of staple above one-inch cotton, and eleven per cent is deducted for each $\frac{1}{16}$ in. below one-inch cotton. This valuable rule makes possible determining in advance the satisfactory strength of any yarn made from any cotton.

In the formulas for yarn strength which the Sheldon engineers have developed, the following letters are used to designate the various factors

S = strength in pounds.
a = number of sixteenths of an inch above or below one inch.
b = difference in yarn counts above or below 28s.

For carded yarn the following formula is used:

$$S = 1600\left[\frac{1 \pm .11a \pm .01b}{C}\right]$$

For combed yarn the following formula is used:

$$S = 1750\left[\frac{1 \pm .11a \pm .01b}{C}\right]$$

To show how nicely this system works out, the writer will work out the strength of 35s yarn made from $\frac{7}{8}$-in. staple cotton carded; 35s from $1\frac{1}{4}$-in. cotton carded, and also combed; 21s from $\frac{7}{8}$-in. carded; and 21s from 1-in. carded.

Cotton $\frac{7}{8}$-in. carded:

$$\frac{1600\ [1 - (.11 \times 2) - (.01 \times 7)]}{35} = \frac{1600 \times .72}{35} = 32.45$$

$1\frac{1}{4}$-in. carded:

$$\frac{1600\ [1 + (.11 \times 4) - (.01 \times 7)]}{35} = \frac{1600 \times 1.37}{35} = 62.63$$

$1\frac{1}{4}$-in. combed:

$$\frac{1750\ [1 + (.11 \times 4) - (.01 \times 7)]}{35} = \frac{1750 \times 1.37}{35} = 68$$

$\frac{7}{8}$-in. carded:

$$\frac{1600\ [1 - (.11 \times 2) + (.01 \times 7)]}{21} = \frac{1600 \times .85}{21} = 65$$

1-in. carded:

$$\frac{1600\ [1 - (.11 \times 0) + (.01 \times 7)]}{21} = \frac{1600 \times 1.07}{21} = 81.52$$

The foregoing figures are verified by practice and by Draper's standard-breaking-strength table. The engineers who developed this system have made up some very useful charts based on their formulas.

Variations Calculated by Deviation

Some progressive mill men are adopting the system of calculating variations by deviation, instead of by the general-average system. The advantage of this system is that it gives a fairer picture of conditions than can be obtained otherwise.

Ten samples of the same yarn weigh as follows:

Grains	Points Less than Average	Points More than Average
48	1.3	....
49	0.3	....
50	....	0.7
47	2.3	....
45	4.3	....
52	....	2.7
53	....	3.7
54	....	4.7
51	....	1.7
44	5.3	....
493	13.5	13.5

49.3 average

	Gr.
The standard weight is	48
The lightest is	44
The heaviest is	54
The extreme variation is	10
The average is	49.3
The deviation (explained later) is	5.48

The purpose of the deviation is to show how close all of the items average up to the general average. While the extreme variation is 10, this does not tell the whole story. Neither does it do justice to the general condition of the variations. There might be other sizes almost as bad as this reported variation, and yet no indication of the fact would be included in a single statement of extreme variation. Again the extreme variation might

What strength should this yarn have? It can be calculated

be reached by only two of the items, and not even approached by any of the others. In fact all of the others might be very near to the standard. The mere fact that only the extremes of two items are mentioned depreciates, as it were, all of the other items. The deviation remedies all this, and shows that the average extreme is way down to 5.47 instead of up to 10.

The rule for ascertaining the deviation is to find the difference between each item and the general average, including those above the average and those below the average. These differences are to be added together and divided by the total items, which in this case is 10. Multiply this by 100 and divide by general average.

In the above example, there are five items below the general average and five items above. The total of each is 13.5, or 27 in all.

$27 \div 10 = 2.7$

$27 \times 100 \div 49.3 = 5.48$ average deviation. This is the true variation.

All this goes to show that those who depend upon an average size do not find exact status of their work.

Another computing form which readily proves its worth is made by some mill men for the purpose of determining a suitable number of automatic looms per battery hand when changes of style take place.

The accompanying "Loom Computing Table for Battery Operation" illustrates the operation complete with some examples which have been worked out by a leading mill. The form also includes the formulas or rules used in conjuncture with the plan. The writer believes this to be an excellent working plan for mill men. The table is plainly presented and needs no explanation.

Now that we have the rayons, we have another textile mathematical problem with us—that of finding the count of rayon corresponding to a certain count of cotton, and vice versa. The constant 5282 is useful in this connection. To find the cotton count equivalent to a certain denier, divide 5282 by the denier. For example, $5282 \div 150 = 35.22$ cotton yarn. To find the denier which is equivalent to a certain cotton count, divide 5282 by the cotton count. Thus, $5282 \div 30 = 176.06$ denier.

Making cotton price mixtures is of great importance.

Let us suppose that we have 50 bales of cotton at 21c. per lb. and 100 bales of cotton at 22c. per lb. If this cotton is mixed half and half, of course the price will be 21½c. per lb. But supposing we desire to run out both lots even; then our proposition changes somewhat and the problem must be figured out thus:

$50 \times 21 = 1050$
$100 \times 22 = 2200$
$3250 \div 150 = 21.67$c.

Now let us suppose that the mill man wants to fill an order with the above cotton so mixed that it will stand him 21¼c. per lb. How will he compute this price mixture? The rule is to subtract the lower price from the higher price, also the lower price from the price wanted. Now divide what is left of the price wanted by what is left of the higher price. The answer will be the percentage of the higher-priced cotton which he can use. Subtract this from 100%, and this will show what must be used of the lower-priced cotton, thus:

22c. higher price	21.25 priced wanted
21c. lower price	21.00 lower price
1	.25

$.25 \div 1 = 25\%$ of the higher required
$100 - 25 = 75\%$ of the lower required

Proof:

$25 \times 22 = 550$
$75 \times 21 = 1575$
$100 \quad 2125$
$2125 \div 100 = 21¼$c. per pound

When there are three different lots, such as 22c., 24c., and 26c. cotton, the three lots will have to be reduced to two prices. This must be done in this way: If the price wanted comes between 22 and 24, these two prices must be averaged. But if the price desired comes between the 24 and 26, these two prices must be averaged. Then the previous rule illustrated will work accurately. Mixtures of these three different lots of cotton can be made at any price over 22c. and under 26c. Example: a 24½c. mixture is wanted and some of each lot must be used.

$24 + 26 = 50 \div 2 =$ average price, 25c.

25	24.50
22	22.00
3	2.50

$2.50 \div 3 = 83\%$ of the two higher-priced lots (to be used 50-50)
$100 - 83 = 17\%$ of the one lower-priced lot

Proof:

26c. cotton × 41% = 10.65
24c. cotton × 42% = 10.09
22c. cotton × 17% = 3.74
24.48c. mixture

The above rule will work the same way when the price

LOOM COMPUTING TABLE FOR BATTERY OPERATION

Bobbins 7⅞ in. long
450 bobbins per hour
20 bobbins per pound

160 picks per minute
Shuttle 1¼ in. inside
Northrop looms

Filling Number	Length on Bobbin, Yards	Width of Cloth, Inches	Picks per Bobbin	Minutes Run	Bobbins per Hour per Loom	Looms per Hand	Special Notes
A	*B*	*C*	*D*	*E*	*F*	*G*	Bonus
50	2,100	30	2,362	14.7	4.1	109	If full production, add 10 per cent to wage
10	420	38	378	2.3	25.5	17	
40	2,680	30	1,890	11.8	5.28	88	
$\frac{840\times A}{20}=B$	$\frac{B\times 36}{C+2''}=D$	$C+2''=$ reed width	$\frac{D}{160}=E$	$\frac{160\times 60}{D}=F$	$\frac{450}{F}=G$	$G\times$ rate = wage	Wage plus bonus

wanted is between the lots of cotton priced 22c. and 24c.

If there are four lots of cotton, the two lower-priced lots may be averaged, and also the two higher-priced lots. Then the rule will work as previously shown. If there are five lots, the same rule applies as for the three lots.

If the price wanted comes between the three higher lots, those three lots may be averaged. If it comes between the three lower lots, those may be averaged. The rule must have only two prices with which to work, and then proportionate amounts may be used of these different lots which have been averaged.

However, our rule is so flexible that any combination may be arranged, so that it would not be necessary even to use proportionate amounts. Even if there were a dozen different lots, any two, three, or four could be reduced to two prices and then repriced with uneven amounts of any other lots.

Illustrating Method

To illustrate, here are a few odd lots of cotton as follows: 60 bales at 20c. and 10 bales each at 21c., 22c., 24c., and 25c. It is desired to run out these lots even with some better cotton which is on hand and which is 26c. The new mixture must be 24½c. How much of each lot shall be used of the cheaper grades to run out even, and how much of the 26c. cotton shall be mixed with the cheaper lots? First find the average price of the cheaper grades as follows:

60 × 20 = 1200
10 × 21 = 210
10 × 22 = 220
10 × 24 = 240
10 × 25 = 250

100 2120

2120 ÷ 100 = 21.20c. average

Then:

26	24.50
21.20	21.20
4.80	3.30

3.30 ÷ 4.80 = 68.75% of the 26c.
100 — 68.75 = 31.25% of the 21.20c. average price of odd lots.

In order to make a 100-bale mixture, we must use:

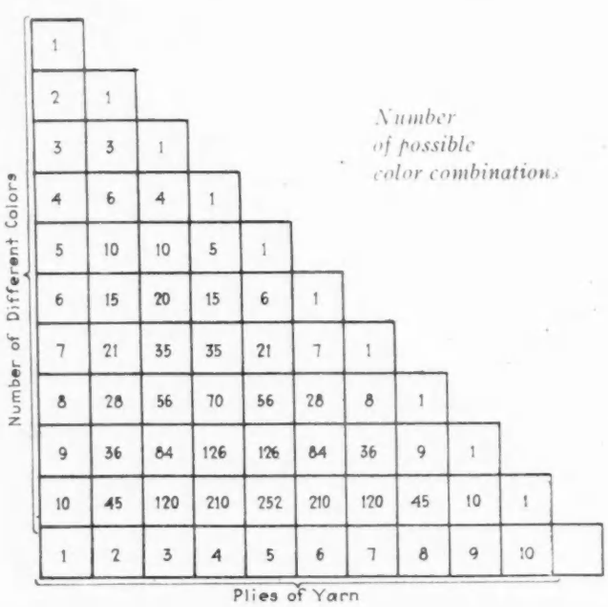
68¾ bales at 26c.
3⅛ bales at 21c.
3⅛ bales at 22c.
3⅛ bales at 24c.
3⅛ bales at 25c.
18¾ bales at 20c.
Average price, 24½c.

And we can split down the cheaper grades into five lots—viz., one lot of each price—but the 20c. lot must be six times larger than those of the other prices, or 60%, and the rest 10% each.

Number of Combinations Possible

The accompanying table of a triangular shape is an interesting one which can be used to advantage in making up yarn orders. The writer obtained the idea from "Fun with Figures," by Collins, and found that it is adaptable to textile work. With this chart it is possible to ascertain accurately just how many different combinations of colors can be twisted into yarns from two to ten ply without duplicating any set of colors. That is, there will be at least one different color in each set of plies.

For example, a mill receives an order for 15,000 lb. of number 7s, and there are to be eight different colors. The yarn is to be made up into three ply. As many different sets of three ply are to be made as there are possible combinations. Opposite the figure "8" in the third column will be found "56." This is absolutely the maximum number of different combinations which can be made.



Lighting Efficiency, Belt Maintenance and Lubrication

Analyzed for S.T.A. Master Mechanics

From Southern Office, TEXTILE WORLD

ADEQUATE machinery lubrication, economical belt maintenance and the efficient utilization of incandescent lamps were subjects treated in three carefully prepared discussions at the fall meeting of the Master Mechanics' Division of the Southern Textile Association, held in the White Oak Y. M. C. A., Greensboro, N. C., Oct. 3. Approximately 100 master mechanics, power engineers and mill superintendents attended the meeting which was presided over by W. G. Young, of Wiscassett Mills Co., Albemarle, N. C., chairman of the division.

One of the most interesting features of the meeting was a description of the modern steam power plant of the Proximity Mfg. Co., which was given by J. E. Hardin, general manager of the company, and which was followed by an inspection tour of the large unit. The power plant was designed on the basis of the amount of steam required for process and heating in the Proximity Cotton Mills, the Proximity Print Works and the White Oak Cotton Mills, all subsidiaries of the Proximity Mfg. Co. (Description in TEXTILE WORLD, Sept. 8, 1928).

W. G. Young, chairman Master Mechanics Division, S.T.A.

In the opening address, Glenn E. Park, illuminating engineer, National Lamp Works of the General Electric Co., discussed the various factors determining the most efficient and economical use of ordinary Mazda lamps, stressing particularly the effect of variation in voltage from the standpoint of lamp life, lighting efficiency and the total cost of actual light in the mill.

His address, in part, was as follows:

"The ordinary Mazda lamp consists of a tungsten filament, wound into a small coil, and mounted upon suitable supports within a glass bulb. The air or oxygen is then exhausted from the bulb; the bulb is then usually filled with some inert or inactive gas.

"The filament of each lamp is very carefully measured, both as to length of the filament wire, as well as to the diameter of the wire. Should places of narrow diameter be permitted in the wire, these of course have a greater resistance and consequently become hotter than the rest of the filament. The increased heat at any narrow place in the filament wire soon causes the wire to burn in two, resulting in lamp failure. This type of lamp failure is very rare, as narrow places in the filament have largely been eliminated by carefully drawing the wire through diamond dies of exact dimensions.

"The other important factor in lamp filaments with respect to size is that of filament length as compared to the voltage that is to be applied to it. Lamps differ very much from motors, or heating appliances, in their relation to the voltage that may be applied. We say that a particular motor, or electric iron, is a 110-volt item. It will operate on almost any voltage in the neighborhood of 110 volts, and do so almost equally well.

"This, however, is not the case with Mazda lamps, and so we find most catalogs list lamps of 110, 115, 120, 125 and 130 volts. There must be some real differences in these voltages or else the lamp manufacturers would not continue to make and stock such a wide assortment.

"This animated chart (showing a chart and lamp set-up) shows the effect upon a lamp, or a complete lighting installation, of the voltage at which lamps operate. We have at the left a scale which indicates the percentage of rated voltage of a lamp at which it burns. If we wish to find what happens when a 115 volt lamp burns at 110 volts, we set the height of the voltage column at 95%.

"At 100% volts the watts consumed by the lamp is 100%. In addition to the wattage of the lamp, the user pays for the energy lost in the lines between the switchboard and the lamp socket. In a well-wired installation this loss may be 3% as shown. As the voltage at the socket decreases, the wattage consumption of the lamp decreases. The total expense for current runs about the same percentage as the voltage at the socket.

"The amount of light or candlepower, expressed in per cent, is given in the third column. Starting again with 100% voltage, we find that for lower voltages the candlepower falls off much more rapidly than the wattage. For instance, at 20% below normal voltage, the lamp wattage is about 70%, and the candlepower is under 50%. In other words, of the 70 units of current consumed by the lamp, only 50 units produce light, the other 20 units representing current that is bought and totally wasted in the lamp.

"Summarizing, we find the following: At 100% voltage the cost of operating a lighting system is 100%. This is made up of current cost, plus lamp renewals representing 10% of the total, and fixed costs including interest, taxes, depreciation, etc. When we run the voltage down our total costs decrease, but not so fast as our percentage of illumination decreases.

"This gives us our data for a comparison of costs per

(*Continued on page 71*)

Production and Piece Rates

for Twisting Worsted from Spinning Bobbins

By Morris C. Bishop

THE operation of twisting from spinning bobbins differs to such an extent from that of twisting from cheeses that production standards must be calculated by a different formula.

This is the case because of the difference in the run-out periods. Where cheeses are used, all the ends are started and stopped at the same time. Where spinning bobbins are used, the ends are started one by one and by necessity must run out in a similar manner. This latter condition is represented diagrammatically in Fig. 1, which shows a complete operation cycle for a frame when all the spindles on a side are doffed at a time. Fig. 2 shows the operation cycle when half of the spindles are doffed at a time.

In these figures the percentage of productive spindles is represented on the vertical scale and time is represented on the horizontal scale.

It will be noticed that the run out is represented by line *mo* in the form of a flat S, while the ends are started along a straight line *on*. Theoretically, if all the bobbins were the same length, the run-out line would be straight and its obliquity would correspond to the starting line. Its irregularity is caused by variation in bobbin yardage, which causes the first run-outs to occur at *c* rather than *f* and end at *a* rather than *e*, for in this case *fe* is the theoretical run-out line. It will be noticed that most of the line *cka*, or the run-out line, lies near the theoretical run-out line. This is the case because most of the bobbins vary but little. Breakage in spinning is the largest cause of yardage variation.

In determining production standards the efficiency of operataion must be found for the different conditions. In Fig. 1 the length of line *K* in time represents the total operation cycle made up of *J*, which is the average down time of the side, and *G*, which is the average running time. The efficiency could also be determined by comparison of the areas of the different figures which represent production and down spindles. However, the lengths of the lines *J* and *G* would give similar results and are simple to use.

The different factors which affect production standards will be listed as follows:

D = Delivery rate of the front roll in pounds per spindle hour.
Bw = Weight of yarn on the average spinning bobbin, in pounds.
T = Time standard for starting a single end, in minutes.
A = Spindles in the given condition.
P = Spindles per doff.

$$V = \frac{\text{Percentage variation of bobbin yardage or weight}}{100}$$

$$L = 1 - \frac{\text{Percentage allowance for all machine repair, cleaning, etc., necessitating the stoppage of the machine}}{100}$$

The standard-production formula is derived as follows:

$$\text{Operating efficiency} = \frac{G \times L}{G + J}$$

The running time G may be calculated thus:

$$G = \frac{60 \times 2 \times Bw}{D} = \frac{120\,Bw}{D}$$

In the diagram, Fig. 1, J is represented by the time from k to r. The time represented by ab is equal to the time from k to e plus a to r, and is $P \times T$.

The length of the line ea is dependent upon the running time and the yardage variation, and may be calculated to a fair degree of accuracy thus:

$$\text{Time from } e \text{ to } a = \frac{V}{2} \times \frac{120\,Bw}{D} = \frac{60\,Bw\,V}{D}$$

$$\text{Therefore } J = P\,T + \frac{60\,Bw\,V}{D}$$

$$\text{and operating efficiency} = \frac{\frac{120\,Bw}{D} \times L}{\frac{(120\,Bw)}{D} + \frac{(60\,Bw\,V)}{D} + P\,T}$$

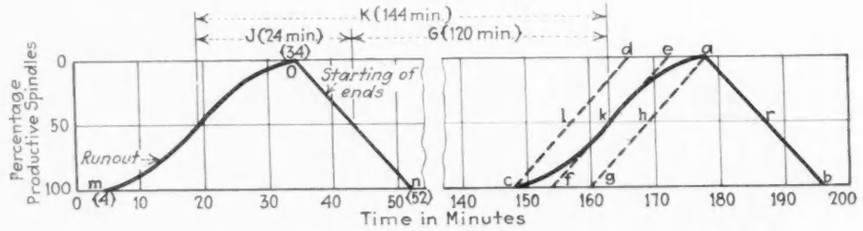


Fig. 1. Cycle of operation in twisting from spinning bobbins, doffing whole side at a time

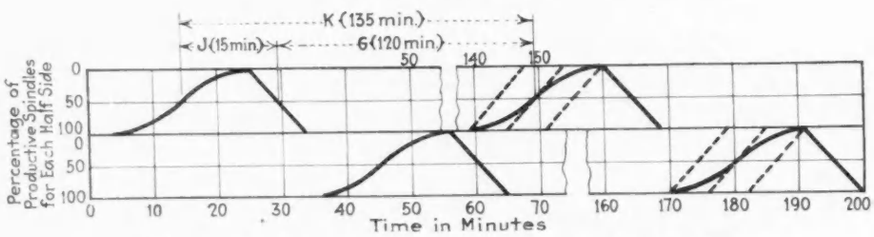


Fig. 2. Cycle of operation doffing half the side each time

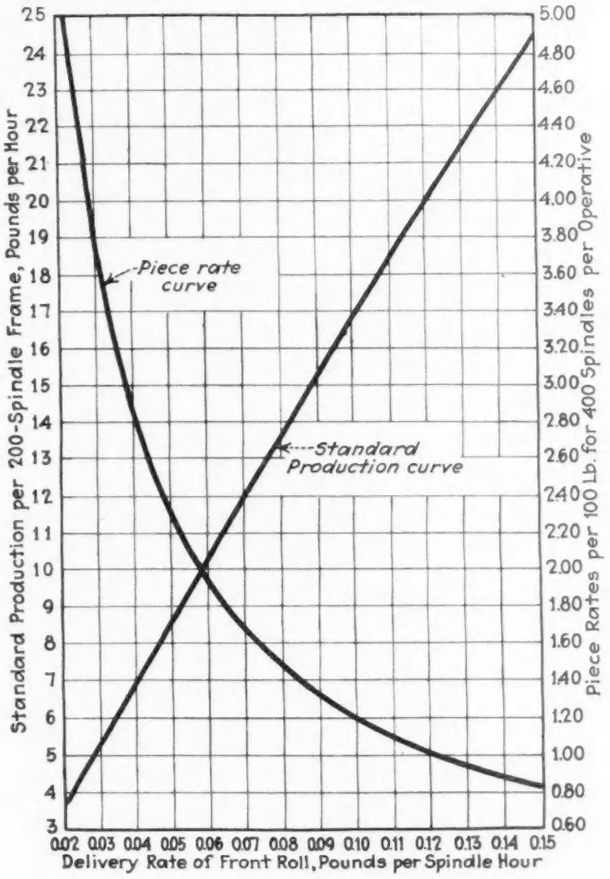

Standard Production per 200-Spindle Frame, Pounds per Hour
Piece Rates per 100 Lb. for 400 Spindles per Operative
Delivery Rate of Front Roll, Pounds per Spindle Hour
Piece rate curve
Standard Production curve
25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3
5.00 4.80 4.60 4.40 4.20 4.00 3.80 3.60 3.40 3.20 3.00 2.80 2.60 2.40 2.20 2.00 1.80 1.60 1.40 1.20 1.00 0.80 0.60
0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10 0.11 0.12 0.13 0.14 0.15

Fig. 3. Standard production and piece rates for twisting from spinning bobbins

Typical curves for production standards and piece rates are shown in Fig. 3, and are calculated as follows:

D = .03 to .15 lb. per spindle hour.
T = .18 minutes. This will depend upon the machine.
P = 50 spindles per doff.
A = 200 spindles per frame. Used in calculating standards. 400 spindles per operative. Used in calculating piece rates.
Bw = .10 or 10 lb. per 100 bobbins.
V = .10 or 10 per cent variation.

$$L = 1 - \frac{5}{100} = .95$$

$$\text{Formula for Standard Production} = \frac{L\,A\,D}{1 + \frac{V}{2} + \frac{P\,T\,D}{120\,Bw}} =$$

$$\frac{.95 \times 200 \times D}{1 + .05 + \frac{50 \times .18 \times D}{120\,Bw}} = \frac{190}{\frac{1.05}{D} + \frac{.075}{Bw}}$$

Using values of 0.10 for bobbin weight only gives:

$$\text{Standard Production} = \frac{190}{\frac{1.05}{D} + .75}$$

Tabulating the calculations:

D	$\frac{1.05}{D}$	$\frac{1.05}{D} + .75$	$\frac{190}{\frac{1.05}{D} + .075}$ or Std. Prod., Lb.	$\frac{100 \times .20}{\text{Std. Prod.}}$ or Piece Rates
.03	35.00	35.75	5.31	$3.77
.04	26.25	27.0	7.03	2.84
.05	21.00	21.75	8.73	2.29
.06	17.50	18.25	10.40	1.92
.07	15.00	15.75	12.05	1.66
.08	13.125	13.875	13.70	1 46
.09	11.67	12.43	15.30	1.31
.10	10.30	11.05	16.90	1.18
.11	9.55	10.30	18.44	1.085
.12	8.75	9.50	20.00	1.00
.13	8.075	8.825	21.50	.93
.14	7.50	8.25	23.00	.87
.15	7.00	7.75	24.50	.82

$$\text{or operating efficiency} = \frac{1 \times L}{1 + \frac{V}{2} + \frac{P\,T\,D}{120\,Bw}}$$

$$\text{Standard production} = \text{Spindles} \times \text{Efficiency} \times \text{Delivery rate} = \frac{L\,A\,D}{1 + \frac{V}{2} + \frac{P\,T\,D}{120\,Bw}}$$

$$\text{Piece rate per 100 lb.} = \frac{100 \times \text{Std. hrly. earnings}}{\text{Standard production}}$$

In considering the operation from the standpoint of operating efficiency, it has been found that it is better to doff only half of the spindles on a side at a time. This can be seen from comparing the areas of the down-time figures from the two methods illustrated in Figs. 1 and 2. Also, referring to the formula, it may be seen that the lower P, the higher is the production rate. Carrying this principle farther, it is obvious that, if we could doff only one spindle at a time and start it immediately, the ultimate of efficiency would be attained. However, there are many factors to be considered; and probably the best method is to doff half a side at a time.

A formula has been derived for calculating the most economic number of spindles to doff at a time, but the frame cannot be divided as indicated by the formula and therefore its practical use is very limited.

To illustrate the practical use of Fig. 3, let us take a typical condition.

Let us take 2/28s running on a frame with a 2-in. front roll at 105 revolutions per minute. From chart 3 or nomograph 3a (TEXTILE WORLD, June 14, p. 51) the delivery rate is found to be 0.14 lb. per spindle hour. (For sake of simplicity in the explanation, contraction of the thread was neglected in determining the delivery rate. In such a case contraction would give approximately 2% less production.) From Fig. 3 in this article we read standard production from a frame is 23 lb. an hour and the piece rate for an operative attending 400 spindles would be $0.84 per 100 lb.

In actual practice several curves should be drawn on Fig. 3 to take care of different bobbin weights, because both the production and piece rates are to a certain degree dependent upon bobbin weight.

The major savings in manufacturing cost that can come from large spinning bobbins lies in the possibility of assigning more sides to the operative. If we are getting spinning bobbins that weigh 9 lb. per 100, and this is increased to 12 or 13 lb. it is obviously possible for an operative to attend approximately one-third more spindles without additional work. Another improvement is the reduction of knots in the heavier bobbins because there is more yardage per knot.

It is always desirable for an operative to be attending frames which are running the same yarn and consequently have equally spaced run-out periods which can be arranged in sequence. If the operative is running two widely different yarns, the run-out periods will overlap and a temporary loss of production will result.

Where double-twist yarns are used, the run-out period is prolonged beyond that calculated herein. This is caused by the additional work incurred by the matching up of the long-yardage light and dark bobbins. This takes more time than when the bobbins may be paired indiscriminately. Such complications can usually be taken care of by doubling the factor of variation V in the formula and basing calculations on this adjustment.

Other articles by Mr. Bishop dealing with similar calculations for other processes of worsted-yarn manufacture appeared May 24, June 14, and July 19.—Editor.

Clean Boilers Reduce Operating Costs; Determination of Furnace Volume

By W. F. Schaphorst, M. E.

I ALWAYS like to see figures in dollars and cents on the economy of keeping boilers clean. For example, I have before me a report on a plant having boiler repairs running to about $4,500 per year. A modern water-treating apparatus was installed and after five months' use it was reported that the total saving due to the apparatus was $8,670 on a five-months' run, or an annual saving of $20,880. This apparatus also saved the old boilers from being condemned by the boiler inspector. The water contains 99.6 grains per gal. of scale-forming substances.

Executives of another concern using unclean water sent in the following report: "We have saved between $4,000 and $6,000 in water cost alone, besides the benefits which we have procured in the way of decreasing boiler-cleaning costs and better operation of the boilers."

Tube cleaners, soot blowers, water softeners, deconcentrators—all such equipment for keeping boilers clean is usually highly profitable.

A large Canadian concern having six 600-hp. boilers could not maintain a superheat of more than 50° to 60° F. over any reasonable period of time. It installed a modern steam purifier, and states that it is now obtaining a steady average superheat temperature of around 100°, which is the theoretical temperature it should have obtained with dry steam from the boilers to the superheater.

Before the purifiers were installed, this concern could not carry over 1½ gages of water in the boilers because of tremendous foaming and priming difficulties. Since the installation of the purifiers, the boilers have been run constantly with water level approximately at middle gage, but even at full gage there is no drop in the superheat. Before the purifiers were installed, it was necessary to dismantle and clean the turbines every six months. Now inspection shows them to be clean.

When first putting this plant in operation, the company did not have a water-softening plant. To correct the troubles it installed an intermittent system. This feed-water-treatment system takes care of the scale-forming material, and the concern has no further trouble with scale in the boiler. But the intermittent system did not, in any way, decrease priming and foaming troubles. All of which teaches a valuable lesson on the importance of clean steam.

Where there is too much exhaust steam—so much that some exhaust is wasted—it is usually best practice to run auxiliaries electrically or mechanically rather than by steam. But where there is insufficient exhaust for heating or processing, it is usually best to operate the auxiliaries by steam, rather than to use bleeder steam for heating or processing systems.

We frequently hear the excuse that where steam operates the auxiliaries, the exhaust is used for heating the feed water, and hence there is no loss. But when the main engine is being utilized, the loss is obviously as great as where the exhaust from the main engine is used for water and the steam from the auxiliaries wasted.

To be certain that the power plant is efficient throughout every process must be considered. It is impossible to lay down a rule applicable to every plant. The thing the owner is most interested in is maximum production per dollar invested rather than maximum efficiency.

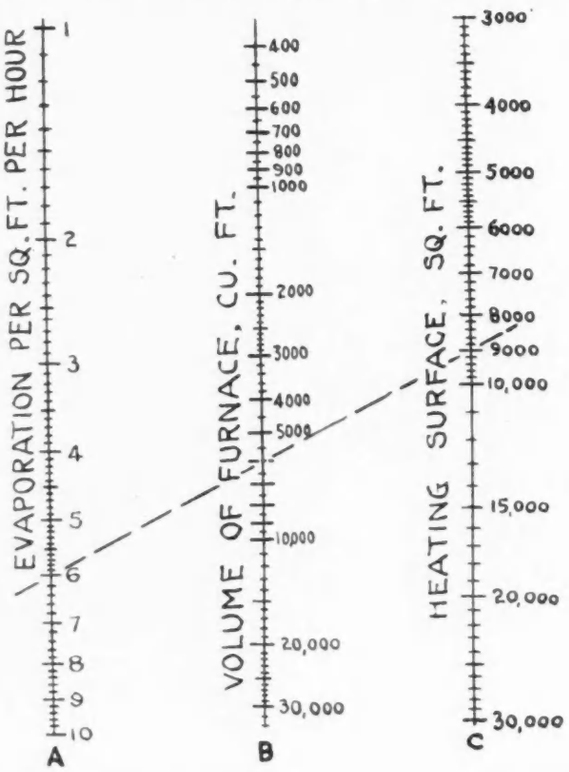
•

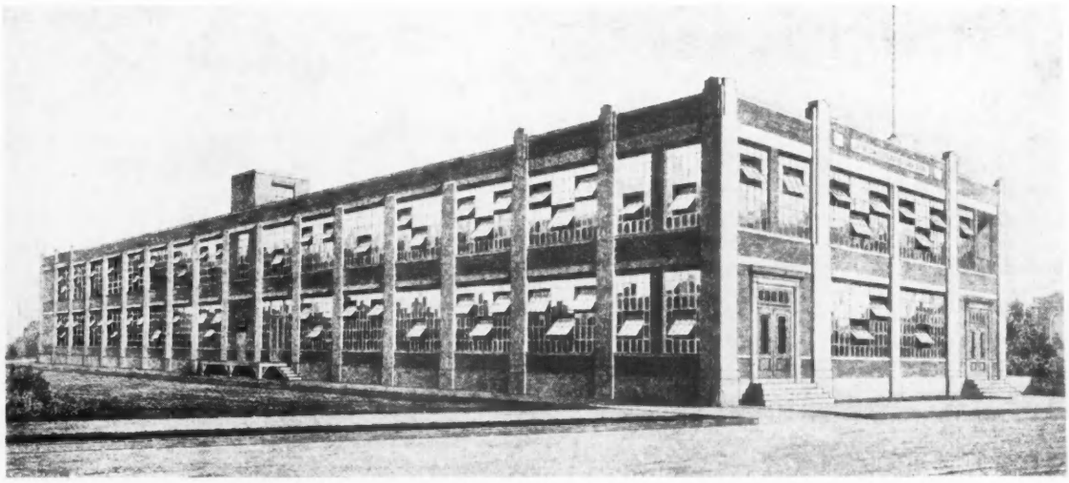
IN CONNECTION with the rapidly increasing use of pulverized coal, a question that must be answered frequently today is: "What shall be the volume of my combustion chamber for burning pulverized coal?"

Herewith is a chart which answers that question. Simply run a straight line from the correct evaporation figure, Column A, to the number of square feet of heating surface in the boiler, Column C, and you immediately have the volume of the combustion chamber or furnace in cubic feet in column B.

For example, the dotted line drawn across this chart shows that if the evaporation per square foot of heating surface is 6 lb. per hour and if there is 9,000 sq.ft. of heating surface in the boiler, the volume of the combustion chamber must be 6,000 cu.ft. The chart is based on a boiler efficiency of 80%.

The chart will handle any boiler of any size. Thus if the heating surface were 90,000 sq.ft. instead of 9,000 the same dotted line across the chart tells us that the volume of the furnace must be 60,000 cu.ft. instead of 6,000. If it is necessary to add a cipher in Column C, add a cipher in Column B. Or if it is necessary to add a cipher in Column A, add a cipher in Column B.





New hosiery mill of J. W. Landenberger & Co., Philadelphia

New Landenberger Plant Permits Modern Production Methods

J. W. LANDENBERGER & CO., hosiery manufacturers, Philadelphia, are building a new plant to house machinery that at present is being operated in four separate buildings. Modern straight-line production methods that have attracted attention in the automobile field are to be used, and the structure has been designed with this in view. The building, located at Castor Ave., north of Kensington Ave., is of concrete construction and will have a total floor area of slightly under 50,000 sq.ft. It is two stories high, 310x76 ft., with a basement measuring 76x140 ft. The building was designed by Julian S. Simshon, Philadelphia.

Provision has been made for the erection of a third floor if needed; and one of the engineering features is the method of constructing the flat roof to permit this addition. Where a third floor is contemplated, the usual way is to extend the steel rods in the columns about 2 in. above the roof line, bend them over to a horizontal position, and encase them in a concrete mound. In the present case the roof construction has been improved by cutting off the rods in the columns about 18 in. below the roof line and slipping a pipe sleeve over them—the top of this sleeve being level with the roof line. When the third floor is added, the rods in the third-floor columns will extend down into the sleeves and form an anchorage for the additional floor.

Floor slabs are concrete, but throughout the building wooden floors have been placed. This has been done by spreading a 2-in. layer of dry sand over the concrete and placing in it 2x6 planks with $\frac{1}{4}$-in. spaces between the planks. A finished maple floor will cover the planks. This type of flooring is expected to add greatly to the comfort of the employees.

Fire protection has been provided by installing a standard sprinkler system operating on city water pressure. No storage tank is required, since the building will be only two-stories high. There are, however, four columns located near the center of the building which have been designed to support a 20,000-gal. tank when the third floor is added.

The heating system has been designed to keep all parts of the building at 72° F. throughout the winter. Overhead unit heaters will be employed in the plant portion of the building and cast-iron radiators in the office. The temperature-control equipment consists of several automatic switches which shut down the motors on the unit heaters when the required temperature is reached and starts them again when the temperature falls 2° below the required standard.

A unique feature of the building is the fact that it contains neither a boiler nor a smoke stack, all steam being purchased from outside and piped underground to the Landenberger plant. It is expected that this will prove economical since it obviates the purchase of a boiler and stack at this time. Provisions have been made for the erection of a stack if it is ever needed.

Layout Obviates Rehandling of Goods

A driveway, which extends from the front on Castor Ave., along the side of the entire building, and discharges in the next street, provides for incoming and outgoing traffic and eliminates the necessity of trucks backing in and out.

F. L. Landenberger, one of the executives of the company, states that yarn for manufacture of hosiery will be taken to one end of the top floor and then will move in a straight line through the various processes of winding, knitting, looping, and seaming. Goods will next be dropped down a chute to the boarding, finishing, and inspection departments. Finally the hosiery will pass to the boxing, packing, and shipping departments. There will be no rehandling from the time yarn enters the plant until the finished hosiery leaves the shipping department.

OVERSEERS' ROUND-TABLE

THIS department offers a new subject for discussion each week and gives readers' comments on problems introduced during previous weeks. The subject which was opened four weeks ago is closed this week and a summary of contributed ideas is given on opposite page

◆

Discuss Best Methods to Handle Suggestion Boxes

Editor, Overseers' Round-Table:

REGARDING THE benefits of a suggestion box. We think a suggestion box would be very beneficial. The common employee, who comes daily in contact with his work, can often offer suggestions that will make better quality of work and saving in cost. JAMES L. TURNER.

Editor, Overseers' Round-Table:

SUGGESTION BOXES can be of benefit to any concern if the overseers are open-minded enough to put into effect suggestions which originate from those in lower positions. It is a fact, however, that there are many overseers who think it impossible for their underlings to have any ideas of value to the overseer. A suggestion box tends to give the workers, especially the good ones, a greater interest in their firm and makes them feel that they have some voice in the management. It would at least show who was fitting himself for a promotion and, after all, the actual productive worker is really the one who should find easier and better ways to do his work.

While nobody wants snoopers there are certain occurrences, such as the disposal by employees of excessive waste, malicious destruction of mill property, etc., which might well be mentioned in a report dropped in the suggestion box. No names would be mentioned, of course, but constructive steps to overcome the offence could be outlined.

The larger the mill the greater the benefit which would be secured from a suggestion box. In a very small mill they are, perhaps, unnecessary, for everybody is on talking terms with the boss and can give him their suggestions by word of mouth. W.F.P.

The Overseers Discuss Their Meetings

Editor, Overseers' Round-Table:

I MUST agree with Pete about the discussions of the overseers. When we discuss things which are of interest to all the overseers and superintendents, then the meetings are of real value. But if we have to listen to someone tell of last week's fishing trip, or his "hole in one," we might as well discontinue these meetings. Help management, human relations, or psychological problems are well worth study and discussion by any group of overseers.

If we have an overseer like Danny among us, why then we must get him out of that nervous feeling that something may go wrong on his job while he is spending a few minutes at the meeting. He must have more confidence in the men under him than that. If an overseer is so nervous about his job that he is afraid to leave it a few minutes for fear something may go radically wrong, then the job would be better off without him. Of course a man must have the interest of his job at heart, but not to the extent of thinking that it cannot get along without him. I think it reflects more credit on an overseer to have men about him capable of looking after the job, than it does where it is necessary for him to be on the job every minute to keep things going.

I say, continue the meetings with general interest discussions. GEORGE.

Editor, Overseers' Round-Table:

I CERTAINLY do think that meetings of the overseers are of real assistance, particularly in these days when changes are many and frequent and not like the old days when orders were plentiful and business ran smoothly. Today, if you are not prepared and do not look ahead you may be left at the post.

First, I will agree with Danny that an overseer should spend as much time as possible in his department, but he should have an assistant whom he can depend upon to run things for at least 30 minutes, particularly when the time

Night Work Comes Up

"I FEEL that I have been suggesting too many of the topics for discussion," Superintendent Chase spoke to the overseers, "so I'm in hopes that one of you will come to the front with a question which will start the battle."

"I have been reading quite a bit lately about the limitation of night work in textile mills," Hank took the floor, "but I haven't seen much expression of opinion by supers, overseers and the like. This is an industry rather than a mill problem, but this group of overseers represent a cross section of experience in many mills and various sections of the country and I think it would be interesting to bring out the different opinions and find out how the majority would vote. In order to get the greatest difference in views I would suggest discussing the advisability of entirely eliminating night running."

"I'm in favor of stopping all night work," Pete spoke up, "although this would have to be done gradually by first eliminating women and minors, as they are now doing, and then have complete stoppage follow as opinion was favorable. I don't need to point out that night running means overproduction with all the resulting evils. In addition, working nights and trying to sleep during the heat of the day, especially in summer, is not healthful. For this and many other reasons I think night work should be slowly eliminated."

"I agree with Pete about the desirability of stopping night work," Danny put in, "but I don't agree that it should be done slowly. When there is an evil growth the only thing to do is to take a knife and cut it out. I say to stop all night work at once without any compromises."

"Maybe it's because I'm getting old," Bill rejoined, "but I haven't much faith any more in these

For Discussion

great schemes which are supposed to put the industry on its feet overnight. You know that if a mill does a certain volume of business by running nights they have a sales and executive organization geared to that volume. If they have to stop running nights they will find some way to get sufficient machinery to make the daytime production equal to the old day and night output and you are just where you started as far as overproduction is concerned. Further, if you stop night work you'll throw a lot of people out of work, at least temporarily, and that would be bad. As far as the so-called physical and social degradation of night work goes, that is mostly bunk. If it weren't night watchmen would all die an early death."

◆

Do *you* think that night work should be entirely eliminated?

Overseers and others are invited to discuss this and other questions brought up in the super's talks. Letters accepted and published will be paid for without regard to length. Brevity is desirable.

of the overseers' meetings are set and he can give instructions to the assistant to carry out during his absence.

In my estimation a good plan is to have all the overseers meet with the superintendent at the cloth table every day at 9 a.m. or 4 p.m. The seconds can be examined and each overseer can bring samples of any bad work from the preceding department. After the cloth has been examined any question of human relations, etc., can be brought up.

Any department assistants would know where to reach the overseer in case of emergency, under such an arrangement, although I would feel sheepish to think that I did not have an organization which could get along without me for a few minutes. The writer can name dozens of mills where the overseer takes time off to fish or hunt. Surely the mill would not fall down if they met with the super and brother overseers once a day. BEN S. PIPER.

Editor, Overseers' Round-Table:

CERTAINLY OVERSEERS' meetings are worthwhile. They should be held at regular intervals.

If properly conducted, the overseers' will leave the meetings with a better spirit, a better realization of their responsibility, and a feeling that they are actually taken into counsel in affairs pertaining to the company's welfare.

When a man like Danny feels that he can't spare the time to leave his department to attend the meetings then he had better get his department better organized. When an overseer can't leave his department for an hour without feeling that he is neglecting it he should be brought to the meetings and told how to "get organized." W. G. LAIRD.

Editor, Overseers' Round-Table:

I THINK overseers' meetings are a great help to any overseer, since it will lead him to argue and get new ideas from the other fellows. Discussing things in general sometimes puts more pep in an overseer and it is a help to him as an executive.

I agree with Pete that technical problems should be left out as they can be handled in the overseer's own department. I am in favor of meetings at least once a month. C.W.C.

Editor, Overseers' Round-Table:

I FIRMLY believe that overseers' meetings are very beneficial, both to the individual and to the mill. They bring out tangible points which could not be discussed at other times, providing of course that the meetings are properly conducted.

I also believe that a man feels that he is more than a cog in a large machine when he can get up and voice his opinions on savings or lowering of costs in his department.

These meetings should be conducted along the lines of betterment for each department concerned, and they will show benefits, in the long run, if so conducted.

HENRY F. HORN.

A Whole-Day Holiday for Saturday?

Editor, Overseers' Round-Table:

THE QUESTION of the full holiday on Saturday is brought up by you in consequence of the prevailing overproduction of almost every kind of goods. After the war many markets remained closed and many countries, which had previously been buyers, became manufacturers, and even exporters later on.

The world is rushing toward industrialization. Machines, with ever increasing output, are constantly diminishing the demand for labor.

These beautiful inventions will be a blessing only if the world decreases the working hours of labor in proportion to the constantly increasing productive capacities of these new machines.

As far as consumption is concerned, no wise laborer will increase his expenditures when his cost of living and wages remain at the same level. Only an increase in wages will enable a laborer to spend more than before. A free Saturday can influence unemployment favorably, but not consumption.

S. KNOEK,
Amsterdam, Holland.

◆

Summary of Discussion on Value of Overseers' Meetings

On the broad question of whether overseers' meetings should be held the vote was, proportionately, eight to one in the affirmative. Two points were stressed in the contributions: First, that a great deal depended upon the manner in which the meetings were conducted, and second, that an overseer who felt he could not spend the necessary time away from his department did not have his work properly organized. Only 6% of the letters favored the introduction of technical subjects.

NEWS about MEN

COL. F. VERNON WILLEY (LORD BARNBY), head of Francis Willey & Co., Bradford, England, was the principal speaker at the annual dinner of the National Association of Manufacturers, held Oct. 6 at the Hotel Roosevelt, New York.

P. T. PHILLIPS, president of American Textile Co., Pawtucket, R. I., has been elected president of the Shambow Shuttle Co., to succeed RALPH L. GREENE. Mr. Phillips will not relinquish his duties in connection with the American Textile Co., of which he is the active head.

CHARLES A. R. RAY, president and agent of the Norfolk Woolen Co., Franklin, Mass., has been appointed a member of the Republican state committee of Massachusetts.

J. A. BARNES, president of the Blood Knitting Co., Amsterdam, N. Y., was elected national counselor of the chamber of commerce in that city at the annual meeting.

DANIEL H. CONWAY, mayor of Oswego, N. Y., and well known knit goods manufacturer, has been nominated on the Republican ticket for State controller.

FRANK H. WILLARD, president of the Graton & Knight Co., Worcester, Mass., started on the tour from New York on Oct. 7, in a special train with the National Research Council on a visit to nine American representative research laboratories in this country.

SOLON D. BAUSHER, Reading Pa., formerly president of the National Association of Hosiery & Underwear Manufacturers, is president of the merger formed by the combination of the Hamburg (Pa.) Savings & Trust Co. and State Bank at Kempton, a nearby town.

ADDISON L. GREEN, chairman of the board of Farr Alpaca Co., Holyoke, Mass., recently returned from an archeological expedition in southern France and Spain, in company with his son, Marshall, Ambassador Charles G. Dawes and Prof. George Grant McCurdy of Yale University. With reference to industrial conditions in Europe, Mr. Green states there was apparently no unemployment problem in France and Italy, but that this problem was more acute in Germany and England.

EDWARD V. PETERS, formerly vice-president in charge of Tubize Artificial Silk Co. of America, Inc., now Tubize Chatillon Corp., has become associated with St. Joseph Lead Co., New York. Mr. Peters will be in charge of the newly organized zinc department of the lead company and will direct the development of it. Previous to his connection with Tubize, he held an important post with New Jersey Zinc Co. He terminated his connection with Tubize Chatillon Corp. early this year.

MORRIS PRINCE, secretary of the North Carolina Hosiery Manufacturers' Traffic Association, has been appointed a delegate to the annual meeting of the Associated Traffic Clubs, which will be held in Atlanta, Ga., Oct. 8-9.

International.

Col. Willey (Lord Barnby) head of Francis Willey & Co., Bradford and Boston, made a smiling arrival in New York when the Aquitania docked recently.

RICHARD LENNIHAN, treasurer of the Hamilton Woolen Co., Southbridge, Mass., as chairman of the building committee of the new Harrington Memorial Hospital in that town, was master of ceremonies at the exercises in connection with the breaking of ground for the structure on Oct. 4.

W. M. MCLAURINE, secretary, American Cotton Manufacturers Association, Charlotte, N. C., is conducting a course in foremanship training in the Parker People's College, an annual three-months institution for the education of adults in the Parker School District, Greenville, S. C.

PAUL JAY FREEMAN, manager of the New York office of the Westcott Hosiery Mills, has resigned, effective Oct. 15. It is said that Mr. Freeman has no definite plans for the immediate future. When the Westcott mills first offered grenadine hosiery early this year, Mr. Freeman came into particular prominence with his successful presentation of this product to the trade.

J. E. MILLIS, secretary and treasurer of the Adams-Millis Corp., High Point, N. C., has been chosen a member of the board of governors of the North Carolina Traffic League.

JOHN J. ELLIS, formerly with Stephen Sanford & Sons, carpet manufacturers of Amsterdam, N. Y., before their merger with the Bigelow-Hartford Carpet Co., as southern representative, has been appointed manager of the Atlanta office of the Bigelow-Sanford Carpet Co., Inc., it was announced recently by officials of the company.

JOHN A. PERKINS, agent of the Harmony Mills, Cohoes, N. Y., celebrated his 50th year in the textile business on Sept. 29. During the day he received many visitors at his office, and in the evening a group of workers led by a band serenaded him at his home. Mr. Perkins entered business as a young man with the Lawrence Corp. in Lowell, Mass. In 1892 he left to go to the Lower Pacific Mills, Lawrence, Mass. Three years later he transferred to the Naumkeag Mfg. Co., and later returned to Lawrence to the Atlantic Mill, where he was superintendent. He came to Cohoes in 1917, from the Utica Steam & Mohawk Valley Cotton Mills.

GEORGE WILMOT, traffic manager for the Whitin Machine Works, Whitinsville, Mass., for the last 39 years, has resigned on account of ill health and is succeeded by WILLIAM J. KEARNAN, assistant traffic manager for the last 30 years.

R. W. CHARLESSON, managing-director of Ross Bros., linen manufacturers, Belfast, Ireland, was a recent visitor at the Toronto branch office of the firm.

THOMAS MIX, formerly sales agent for the Dominion Woolen & Worsteds, Ltd., Hespler (Ont.), Can., has been appointed general sales supervisor of the Dominion Woolen & Worsteds, Ltd., makers of cloth fabrics and textile yarns and of the Robert Forbes Co., Ltd., makers of hand-knitting and fancy yarns and knit goods. Mr. Mix will carry out his sales efforts for the two firms from his office at 159 Bay St., Toronto.

O. B. KIESENWETTER, former secretary and treasurer of the Walther Mfg. Co., Inc., Philadelphia, Pa., has been appointed general manager of Dominion Woolens & Worsteds, Ltd., with headquarters at Toronto.

J. W. MCELHANNON has been appointed agent of the Shelbyville (Tenn.) Mills, Inc., and will continue as agent of Lowe Mfg. Co., Huntsville, Ala.

WINFIELD S. SCHUSTER, office manager of the Millbury (Mass.) Woolen Co., entertained the overseers of the plant at a dinner at his hunting lodge in Douglas, Mass., on Oct. 3.

WILLIAM P. WRIGHT has resigned from Slater Co., Inc., of Webster, Mass. During the last two and one-half years, he had been in charge of sales for the finishing plant, located at its New York office. For nearly 15 years prior to his association with Slater, Mr. Wright had been identified with the U. S. Finishing Co. His future plans have not yet been decided upon.

D. L. FULLER, superintendent of the Stillwater (N. Y.) Knitting Co., has returned from a hunting trip through the Canadian Rockies.

GEORGE A. FRANKLIN, general superintendent of the Augusta (Ga.) Factory, Enterprise Mfg. Co., and Sibley Mfg. Co., has resigned.

J. L. BRAMAN, who recently resigned as superintendent of the Bowie (Texas) Cot-

ton Mills, to become overseer of carding at the Langley (S. C.) Mills, has assumed his new duties.

IRBY M. GOREE, formerly connected with the Aragon-Baldwin Cotton Mill, Inc., with office at Chester, S. C., and night superintendent at Whitmire, S. C., and who has been an accountant with the Greenville, S. C., office of Cooley & Marvin, public accountants of Boston, Mass., has resigned and entered upon new duties at the Appalachian Mills Co., Knoxville, Tenn., where he will install the cost system.

FRED S. HIRD, for five years superintendent of the Davis & Brown Woolen Co., Uxbridge, Mass., has severed his connection with the company.

E. D. HATHEWAY, formerly superintendent of Hatheway & Reynolds, Oriskany Falls, N. Y., has moved to Syracuse where he is identified with a new enterprise.

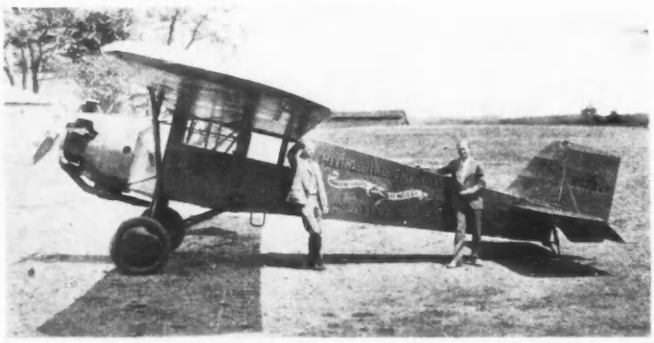
E. M. HOLT, who has held the superintendency of plant No. 1 of the Erwin Cotton Mills, West Durham, N. C., has been transferred to a similar position at plant No. 4 of the same company to succeed W. P. WARD, who has resigned.

R. C. HEYWOOD has become superintendent of Cutter Mfg. Co., Rock Hill, S. C. He was formerly superintendent of the Middlesburg plant of Martel Mills, at Batesburg, S. C. Mr. Heywood's successor at Batesburg is J. E. PAXTON, who was transferred from the Lexington, N. C., plant of the same organization.

ALEXANDER LEVIN, who last week resigned as superintendent of Gotham Silk Hosiery Co., Philadelphia, Pa., has become associated with M. Buten & Son, distributors of clothing, in Darby, a Philadelphia suburb.

W. O. RHODES, superintendent of the service department of the Du Pont Rayon Co., was recently re-elected president of the Old Hickory (Tenn.) Golf Club.

Frank K. Petrea, Swift Mfg. Co., Columbus, Ga., recently elected general chairman of the Textile Operating Executives of Georgia.



C. L. Amos, president, Melrose Hosiery Mills, Inc., High Point, N. C., with the pilot and the Curtiss-Robin airplane which he uses in speeding up his business trips. Mr. Amos first became interested in flying as a sport a little over a year ago. He plans a visit to the following cities during the latter part of October: Atlanta, Birmingham, Montgomery, New Orleans, Houston, San Antonio, Dallas, Little Rock, Memphis, Kansas City, St. Louis, Chicago, Detroit, Buffalo, Rochester and New York. His schedule allows 10 days for this circuit—truly a flying visit!

ELMER T. SAULNIER, general superintendent of the Pepperell Mfg. Co., Biddeford, Me., announces his resignation effective Oct. 1. He succeeded the late ALFRED J. STERLING a year and a half ago. His future plans are as yet undetermined. It is understood that the office of general superintendent will be abolished.

W. A. SPENCER has been made superintendent of the Henrietta Mills No. 2, at Caroleen, N. C., succeeding C. H. LOCKMAN, who recently resigned.

W. M. SOUTHERN, who recently resigned as superintendent of Pineville, N. C., plant of the Chadwick-Hoskins Co., has been succeeded by J. W. MCCARVER.

STANLEY WRUBEL, Gilbertville, Mass., recently accepted the position of superintendent of the Malden (Mass.) Spinning & Dyeing Co.

J. C. TIDDY, formerly head of the spinning, winding and twisting denartment of the Amazon Cotton Mills, Thomasville, N. C., now holds a similar position with the Hawthorne Mills, Clover, S. C.

FRANK DORSEY, former chief engineer at plant of the Rochdale (Mass.) Mills of the American Woolen Co., has accepted a similar position with M. J. Whittall Associates, Worcester, Mass., succeeding W. A. LACEY, who has resigned.

JULIAN H. MEYERS has accepted a position with the Gray Hosiery Mills, Inc., Bristol, Va., and took up his duties there Oct. 1. He formerly had charge of the dyeing, boarding, finishing and shipments at the Paul Knitting Mills, Inc., Pulaski, Va., and until recently he had been with the Cavalier Hosiery Mills, at Narrows, Va.

ARTHUR ADAMS, second hand in weaving at the Entwistle Mfg. Co., No. 2, Rockingham, N. C., has resigned.

R. C. ADKINS, formerly of Rock Hill, S. C., is now overseer of spinning at the Union Mills, Monroe, N. C.

OVIDE BARRY, formerly employed at the Woonsocket (R. I.) Spinning Co., will be overseer in the plant of Bresette Dye Works, Inc., Clinton, Mass.

JOHN H. BENCE, of Pittsfield, Mass., has succeeded VICTOR JOHNSON in charge of dyeing at Jefferson (Mass.) Mfg. Co.

GEORGE L. DOCKRAY, formerly with the Holden-Leonard Co., Bennington, Vt., has taken charge of finishing for Lee Weaving Co., Petersburg, Va.

JOSEPH P. FARON, of Ware, Mass., has taken charge of carding for the Rock River Woolen Mills, Janesville, Wis.

C. H. HALMAN is now overseer of spooling, twisting and warping at the Rodman-Heath Cotton Mills, Waxhaw, N. C.

W. E. HOLT is now overseer of carding and spinning at the Rodman-Heath Cotton Mills, Waxhaw, N. C.

C. W. LESTER, who has been with the Albertville (Ala.) plant of the Saratoga-Victory Mills, is now overseer of the cloth room of the Seminole Mills at Clearwater, S. C.

PERCY MARRIOTT has been promoted to overseer of weaving at plant of Ashland Cotton Co., Jewitt City, Conn.

N. VERNE RAWSON has resigned his position as second hand in the weaving department of the Grosvenor-Dale Co., North Grosvenor Dale, Conn., and was presented with a purse of gold on his retirement on Oct. 3.

A. L. SINGLETON has been made second hand in spinning and twisting at Mill No. 2 of the Alpine Cotton Mills, Morganton, N. C., succeeding E. C. DIVINNEY, who had been with the mills for 30 years, and was serving in that capacity when he died recently.

J. O. BROWN, who has been second hand in weaving at the Autauga Cotton Mills, Prattville, Ala., was recently promoted to overseer of weaving.

NEWS about MILLS

Cotton

Dale Cotton Mills, Ozark, Ala., knitting and weaving yarns, are operating on a full-time day and night schedule.

***Eagle & Phenix Mills,** Columbus, Ga., have issued contract to Williams Lumber Co., local contractors, for erection of an addition to cost $14,000 for actual construction work. J. H. Walton, vice-president, states that the new building is simply in the nature of repairs and necessary extensions to house machinery.

Morgan Cotton Mills of Georgia, Inc., Quitman, Ga., are operating on a full-time day and night schedule.

Summerville (Ga.) Cotton Mills are now operating full-time five and one-half days a week, and a small shift is operating at night in order to fill orders recently received. The mills specialize in the manufacture of duck.

American Net & Twine Co., West Kennebunk, Me., recently placed an order with the Bahnson Co., Winston-Salem, N. C., for additional humidifying equipment.

Firestone Cotton Mills, Newburyport, Mass., closed their plant on Oct. 3, due to a lack of orders. More than 450 operatives were thrown out of work. Operations have been conducted during the summer on a schedule of three days a week with day and night shift. It is expected the plant will be closed for a month.

Caswell Cotton Mill, Inc., Kinston, N. C., after working up material on hand, will suspend operations, according to F. Clyde Dunn, president. The plant has been on half-time for some months.

Erlanger Cotton Mills Co. and **Nokomis Cotton Mills,** Lexington, N. C., both under the same management, and which for some-time have been operating under a two-thirds time schedule have gone on full-time operations.

Charles Mill Co., Red Springs, N. C., has been operating overtime to fill orders on silk and rayon dress goods and shirtings.

East Providence Mills, Inc., Providence, R. I., have made application to city zoning board for permission to build an addition to their present mill.

Slater (S. C.) Mfg. Co. is now operating on a full-time schedule during the day and half-time at night. No further curtailment is planned.

Gonzales (Tex.) Cotton Mill Co. temporarily closed down Oct. 1, with the announcement that the mills will probably reopen Nov. 1 for a brief run. The company will give rent, water and lights free to its 150 employees during the shutdown.

*Indicates previous mention of project.

Waxahachie (Texas) Cotton Mills Co.'s plant is being overhauled and dyeing machinery installed, which will change the product of the plant from single filling flat duck to denims and colored fabrics for work clothing.

Wool

Stamford, Conn. The former local silk mill of the H. A. Verran Co., on the Boston Post Road, has been acquired by new interests and is scheduled to be reopened as a carpet and rug mill at an early date. The mill property is valued in excess of $1,500,000. The purchaser's name is temporarily withheld.

Auburn (Mass.) Worsted Co., Inc., is said to be arranging for the early installation of additional weaving equipment at its mill for enlarged output.

Massachusetts Mohair Plush Co., Lowell, Mass., is operating at a normal rate, according to Agent R. V. Houghton. This is particularly true of some departments, notably those which manufacture plushes for furniture and for railroad coach seats. The most prosperous department of all is the spinning department, Mr. Houghton stated. There is a lack of business for the dyeing and finishing departments. The plant is employing between 350 and 400 persons. Its capacity is 450 to 500 employees.

Merrimac Woolen Corp. Dracut, Mass., is now running on a curtailed schedule after an unusually busy season extending over the last two months, during which time nearly the whole plant was operated on a day and night basis with a double shift of workers. Some of the night work has been discontinued.

Talbot Mills, North Billerica, Mass., have made a temporary curtailment in production for the purpose of making some changes in different departments. The spinning division is inactive but is expected to resume at an early date with close to normal quota of operatives.

Continental Worsted Mills, Inc., Spencer, Mass., recently organized, have bought the **Bigwood Woolen Co.'s** property on Valley St., in that town from the Mechanics National Bank, Worcester, Mass., and will resume operations at the plant shortly. C. L. Eichon, is president of the mills and Arthur J. Lacroix, Hackensack, N. J., treasurer.

General Spinning Corp., Worcester, Mass., incorporated on Sept. 22 with a capital stock of 1,000 shares of common stock without par value to manufacture woolen yarns, has started up operations in the former plant of the Union Textile Corp., at 122 Gold St., Worcester. The officers and directors of the corporation are: President, Simeon T. Blumenthal; treasurer, Roger B. Taylor; assistant treasurer, Inez L. Frantz; directors, officers, except the assistant treasurer, and Jerome R. George, Jr.

Brunswick Worsted Mills will be incorporated on Nov. 1 and will be operated by Henry Haskell who lately resigned his position as president and manager of the Lexington Worsted Mills, Central Falls, R. I. Initial equipment of the new plant will consist of 16 broad worsted looms with auxiliary equipment and arrangements have been made for 12 additional looms. Fine fancy men's wear worsteds will be manufactured, Mr. Haskell being well known as a designer and manufacturer in this line.

Harris & Co., Ltd., plant at Rockwood, near Guelph (Ont.), Can., which has been closed for some years, will reopen shortly. Work is now under way preparing the plant for operation, and while no announcement has been made as to who will control the concern, it is stated that it will pass into the hands of Brantford and Hespeler interests. About 60 men will be employed at the outset.

Dominion Woolens & Worsteds, Ltd., Hespeler (Ont.), Can., is arranging to centralize all weaving mills at the Hespeler plant, and will remove its mill at Peterboro, Ont., to this location at an early date. It is understood that increased operations will be developed at the Hespeler mills.

Milton (Ont.), Can. W. Senior, a native of Huddersfield, England, with many years' experience in the textile industry, has opened a mill in the old shoe factory under the name of the **Senior Worsted Mfg. Co.** The mill, which will manufacture fancy worsteds, will have five large Knowles looms, which number will be gradually increased until ten are in operation. The dyeing of the fancy worsteds in which the firm will specialize will be done by the Cobourg (Ont.) Dyeing Co.

Knit

Pauline Hosiery Mills, Inc., Little Rock, Ark., have definitely decided to remove their plant to Evansville, Ind., accepting an offer of the Evansville chamber of commerce for additional financial backing for expansion. It is proposed to increase the plant equipment from 25 to 50 machines at the new location. Removal will be placed under way at once, and equipment set up in a building at Evansville.

Graham Knitting Co., Los Angeles, Calif., has been chartered with a capital of $250,000, to take over and succeed to the company of same name with local mill at 8636 Graham Ave. The incorporators of the new company are Walter E. Dorn and Elmer R. Easley. Paul A. Amos, 111 West Seventh St., is attorney.

Eureka Knitting Mills, San Francisco, Calif., have added new equipment and will engage in the manufacture of lightweight sweaters to supplement the children's and infants' lines.

Sportswear Mfg. Co., San Francisco, Calif., has purchased the plant of the **Sportcraft Knitting Co.,** Seattle, Wash., and after remodeling the building will engage in the manufacture of sweaters and a general line of knit goods for men, women and children. The plant is equipped with 135 knitting machines. It will be operated under the name of the Sportswear Mfg. Co., and will be in full operation within two months.

Conrad Hosiery Co., Clifton, N. J., is reported planning a new branch mill in the vicinity of Los Angeles, Calif., for Pacific Coast trade. The company recently opened a mill branch at San Francisco, Calif.

*__Fort Plain (N. Y.) Knitting Co.,__ has filed notice of company dissolution under state laws.

Atlantic City Knitting Co., 200 Madison Ave., New York, has leased space in the building at 133-41 West 21st St., for a local knitting plant.

*__Perfection Hosiery Mills, Inc.,__ Burlington, N. C., have rebuilt the plant which was destroyed by fire about a year ago and expect to be in full operation in a few days. Both full-fashioned and men's spiral knit hosiery will be manufactured. At present 13 full-fashioned machines are in operation and the spiral knitters are now being installed. According to Clifton Elder, an official and principal stockholder in the new industry, the name of the mill will be changed, but as yet the new name has not been selected.

Pilot Full-Fashioned Hosiery Mill, Valdese, N. C., has just completed addition to its plant, at a cost of approximately $30,000, to house new throwing machinery. This building is of standard mill construction, has two stories, 50x75 ft. The new equipment includes twisters, winders and covers. When the machinery has been installed and the enlarged plant begins operations approximately 4,000 lb. of silk will be used each week. This plant operates 30 knitting machines for the manufacture of full-fashioned hosiery.

*__Lyerly Full-Fashioned Mill, Inc.,__ Hickory, N. C., which was reported a few months ago in process of formation, is now organized, with G. L. Lyerly president; R. L. Bothwell vice-president and E. Lyerly, secretary and treasurer. The company operates 15 machines.

Chipman Knitting Mills, Easton, Pa., are reported still on a 7-hour day, except for 45-gauge machines, which are running full night and day. The latter consists of 15 machines. The mills have been operating at this rate for several months.

Oakbrook Hosiery Mills, Inc., Reading, Pa., have been granted a permit for an additional building 135x40 ft. Contract has been awarded to H. R. Breneman Co.

Ripon (Wis.) Knitting Works, Inc., have awarded a general contract to the Immel Construction Co., Fond du Lac, Wis., for a one-story addition to cost about $10,000. It will be used for general warehouse service. Auler, Jensen & Brown, Oshkosh, Wis., are architects.

Pride of the West Knitting Mills, Ltd., Vancouver (B. C.), Can., recently moved into new premises and now occupy one whole floor in the Canadian Fairbanks Morse Building on Cambie St. This company originally started in business as the **Columbia Knitting Mills** on Granville St. South and was reorganized in 1912 under its present name.

*Indicates previous mention of project.

Silk

Jennings Silk Co., Holyoke, Mass., will on Nov. 1 move from its present quarters, 32 No. Summer St., to the municipal plant in Canal St., where the company has leased about 25,000 sq.ft. of floor space, according to James J. Jennings, treasurer. The company employs 60 operatives and it is believed the larger space will mean an increased force of operatives in a short time.

Weeper Silk Mfg. Co., Fonda, N. Y., is increasing operations by enlarging its working force.

Yarns Corp. of America, Spartanburg, S. C., processors of rayon yarns and manufacturers' warps, will at once begin full-time day operations, according to announcement of Bernard Heller, general manager, which indicates that a full night shift of workers may be employed also in the near future. Yarns Corp. of America, besides the local plant, has mills operating in Allentown, Pa., and Brooklyn, N. Y.

Grouts Limited, silk manufacturers, St. Catherines (Ont.), Can., have awarded contract for a large addition to the plant. Plans call for a one-story addition, 200 x30 ft. steel frame and brick face construction. Some additional equipment will also be purchased.

Finishing

Bresette Dye Works, Inc., Clinton, Mass., which were incorporated on Sept. 22 with a capital stock of $50,000 to dye and finish woolen, worsted, cotton, linen and silk, have taken over the former plant of the Earnsdale Worsted Co., Stone St., Clinton, by purchase from the Clinton Trust Co. They plan to install machinery to dye yarns and expect to have the plant in operation in a month or two. The officers and directors of the corporation are: President and treasurer, John F. Bresette, formerly of Woonsocket, R. I., Louis L. Briden, Brookline, Mass., and Frank V. O'Hara, Worcester, Mass.

Apex Piece Dyeing Co., Paterson, N. J., has revised plans under way for a two-story rear addition, 60x80 ft., on Wayne Ave., reported to cost about $30,000, with equipment. New bids will be asked on general contract at a later date. John C. Van Vlandren, 140 Market St., Paterson, is architect.

Paterson, N. J. G. Barone, 245 Union Ave., has filed plans for a one-story dye house, 25x98 ft., at 129 Sherwood Ave., to cost about $7,500 with equipment. Martin Edson is architect.

Stanley Dye Works, Inc., Paterson, N. J. E. M. Stiles, of Paterson, has been named receiver of the company, under a bond of $25,000, on application of Joseph Stanley, vice-president.

New York, N. Y. Julius Scheinbaum, formerly president of the United States Dye Works, has leased space in the building at 503-7 East 72nd St., totaling about 7,500 sq.ft. floor space, and will equip for a new textile dyeing plant.

Hulton Dyeing Co., Inc., Philadelphia, Pa., has taken title to the mill buildings and power house at Coral St. and Wheatsheaf Lane, consisting of three, two and one-story units, heretofore held by James Hulton, Sr., for a stated consideration of $300,000.

Clyde Print Works, West Warwick, R. I. John A. O'Brien, general manager of the plant and Edward J. McCaffrey, of Providence, have been appointed temporary receivers of the company by Judge Herbert L. Carpenter, who acted on a petition filed in behalf of Philip J. Rappaport, president.

Miscellaneous

Eagle Mattress Works, 261 Main St., Hartford, Conn., has filed notice of organization to operate a local plant. Joseph Rose heads the company.

Fickett Mfg. Co., Atlanta, Ga., which makes wiping waste, mops, mop heads, etc., is now operating on a full-time basis, according to statement of R. N. Fickett, owner of the company.

Camden (N. J.) Mattress Mfg. Co., recently organized with a capital of $100,000, will take over and expand plant and business of the Camden (N. J.) Mattress Co., 1107 Locust St. The new company has leased a three-story building at 222 Liberty St., and will establish main plant at that location, giving employment to an increased working force. Charles Berkowitz is president.

Peerless Fibre Co., Cohoes, N. Y., is making improvements at its plant, including the remodeling of a large warehouse adjoining the main mill.

Longlife Webbing Co., 525 Broadway, New York, N. Y., through its subsidiary organization, Longlife Realty Co., same address, has concluded arrangements for purchase of mill of **Belding Heminway Co.,** Haverstraw, N. Y., consisting of a tract of about six acres of improved land, with several buildings totaling approximately 50,000 sq.ft. floor space. New owner will occupy at early date for new elastic webbing mill.

Peter Montenaro & Co., Amsterdam, N. Y., is the name of a new concern now manufacturing garnetted stock in a leased section of the former Morris Knitting Mills in that city.

Philadelphia, Pa. An involuntary petition in bankruptcy has been filed against the **Hall Yarn & Waste Mfg. Co., Inc.,** Manayunk, by a number of creditors. The assets and liabilities have not as yet been stated.

Morice Jute Mills, Philadelphia, Pa. Following recent acquisition of this company by the **American Mfg. Co.,** Brooklyn, N. Y., the equipment, materials, etc., have been removed to the Philadelphia mill of the purchasing company on Front St., where increased production will be carried out. The Morice company has been dissolved, and John Morice, formerly president, has retired from business.

Questions and Answers

We undertake to answer, free of charge, to the best of our ability, questions pertaining to textile matters received from any regular subscriber to TEXTILE WORLD. We do not undertake, however, routine analysis of yarn or fabric, or investigation involving unusual expense.

Inquiries should give the fullest information and data possible. In the case of damage to material, a sample should be sent. All inquiries must be accompanied by the name of the person inquiring, not for publication, but as evidence of good faith. The identity of those seeking information on technical subjects will not be disclosed.

Letters expressing opinions or voicing criticism are cordially invited. These will be signed by the correspondent's name unless the letter itself contains a request that the name be withheld.—EDITOR.

Round and Flat Pins in Gilling Fallers

Technical Editor:

According to my knowledge, every comber uses round pins in gilling fallers for worsted. What is the reason? What is the difference between round pins and flat pins for gilling fallers, the space between pins being the same in both cases? (7320)

Round pins are used for two reasons: first, because the manufacture of the pins and drilling of the holes is easier; second, because the danger of cut stock and turned-back fibers as the sliver is pulled through the pins by the front rolls is less. More frequent stops for cleaning would also be necessary were the pins flat. The round shape of the pins enables the front ends of the fibers not under the nip of the front roll or under the control of the back roll to go forward between two adjacent pins aided only by fiber friction. If flat pins were used, many of the front ends of these fibers temporarily under the control of neither the back nor the front roll would be forced forward by fiber friction and would be more or less doubled up, thus defeating an important aim of gilling, which is to effect a parallelization of the fibers.

◆

Yarn With Cotton Core and Wool Covering

Technical Editor:

I am interested in making cotton-core yarns with wool covering. As I have in the past made only all-wool yarns, this new process will make changes necessary.

What I should like to have is a description of the best way in which to put the cotton yarn to the wipe roll; that is, the best place to put the core and the method of placing it. Assuming the travel is overhead to the top doffer, I should like to know the travel to the bottom doffer. Which kind of guide would be best? Do you depend entirely on the rubs to feed the cotton yarn? In using a core of two cotton threads, is it customary to feed them separately or to run the two threads through one guide?

This covers in a general way, I think, putting the unspun yarn on the jack spools, but any additional information you can give me will be greatly appreciated. (7319)

The cotton yarn should be wound on a jack spool with the same number of ends on the spool as there are rings on the doffers, or according to the number of core threads wanted. The spool is placed in a rack just over the top doffer and driven from the doffer, so that the yarn will be delivered to the rings at an even tension. A guide should be placed over the wipe roll with small pigtail hooks, so that the cotton yarn will be delivered in the center of the ring, going under the wipe roll and into the middle of the web at this point.

The cotton ends for the bottom doffer can be passed down through the blank ring spaces of the top doffer, and through pigtail guides under the bottom wipe roll into the center of the web on the bottom ring, in the same manner as at the top doffer.

In using a core of two threads, it seems advisable to run the two threads through the same eye.

The weight of the roping must be made to allow for full draft on the mule.

◆

Weaving Upholstery Trimming With Terry Effect

Technical Editor:

Will you kindly explain in more detail the manufacture of the narrow fabric referred to in the question 7238 and answer thereto appearing on page 52 of your July 26 issue? [*This fabric is shown herewith in Fig. 5. —Editor.*] *I am particularly anxious to learn why a three-bank batten is necessary to produce this fabric, and I would like to know how the terry effect is produced.* (7316)

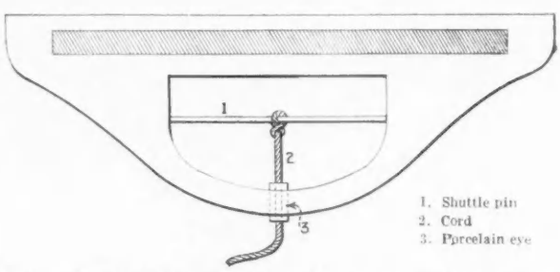


Fig. 1. Cord tied to shuttle pin and passed through eye

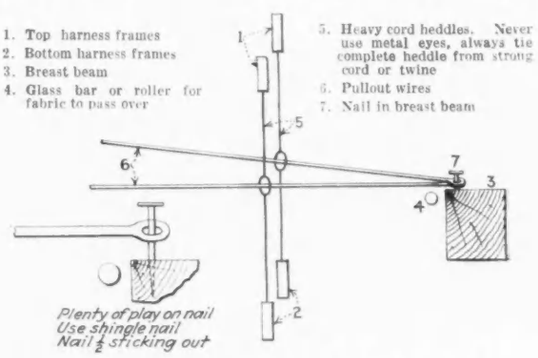

1. Top harness frames
2. Bottom harness frames
3. Breast beam
4. Glass bar or roller for fabric to pass over
5. Heavy cord heddles. Never use metal eyes, always tie complete heddle from strong cord or twine
6. Pullout wires
7. Nail in breast beam
Plenty of play on nail
Use shingle nail
Nail ½ sticking out

Fig. 2. How pullout is made and fastened

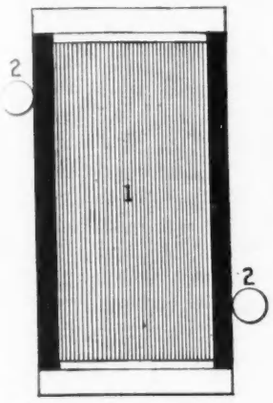


Fig. 3. Wires on outside of reed

As stated in reply to inquiry 7328, a three-bank or three-shuttle loom is really the only type of loom on which this class of narrow fabric can be made successfully and at a fair margin of profit. Most of the upholstery manufacturers pass up this type of trimming on account of the difficulties in getting the right effect; but if the following instructions are carried out success should result.

Should the sample in question be made on a single-shuttle loom, it would be impossible to obtain the terry effect in as even condition as shown, even though the terry attachments are set and operating with 100% perfection. The finished appearance would be practically the same as that of a turkish towel or washcloth.

Shuttle No. 1 (bottom shuttle) is always used for the filling; and shuttles No. 2 and 3 (middle and top shuttles), always for the cord, the cord to be tied to the shuttle pin and passed through the eye of the shuttle, as shown in Fig. 1. It will be an easy matter to judge the length of the cords needed, but a safe method is to cut the cords at the outside of the pull-out wires after the shuttle has made the first pick and the cord is lying in the fabric.

Two extra harnesses will be needed for what are commonly known as the pull-out wires, these harnesses always being in front of the regular ground and figure harnesses. The pull-out wires are fastened on the breast beam of the loom with a small wire nail, and never fastened in the rear of the harnesses. (See Fig. 2.)

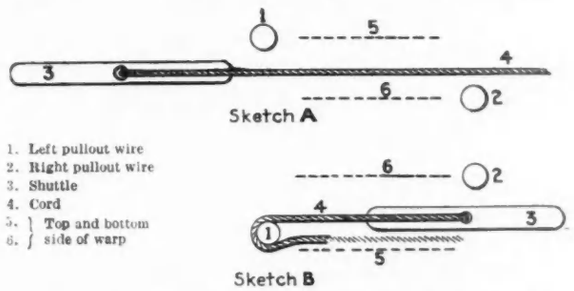


Fig. 4. In sketch A the cord 4 is being laid ready for the shed (5 and 6) to close the end of the cord extending a little beyond pullout wire. Sketch B shows the shuttle on its return trip pulling the cord out of the terry pick already made and laying it in the next pick to be made

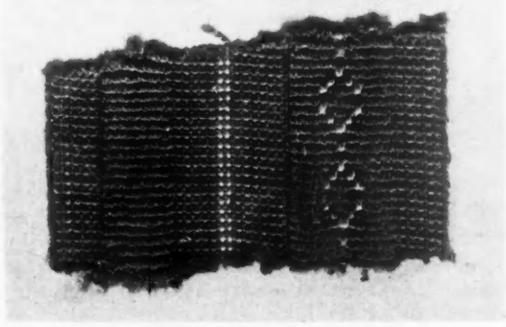


Fig. 5. Upholstery trimming with terry effect

THOUSANDS of inquiries are handled annually by the Technical Editors. In order that as many readers as possible may benefit from this service, we select problems of general interest for publication each week.

One pull-out wire is to be on each side of the fabric. Wires are to pass on the *outside* of the reed, as shown in Fig. 3. Never pass the wires through the reed, as this will allow them to draw in, wearing out the reed and causing much trouble with the cords.

In making the design and cutting the cards, care should be taken to see that the wire is up on the side on which the shuttle is leaving the goods and down when going back to the side it started from. One wire is always down and one up. Both wires are to be *down* when the filling shuttle is going through.

The design should be made as follows:

One pick, ground—bottom or filling shuttle working
One pick, figure—middle or cord shuttle working
One pick, ground—bottom or filling shuttle working
One pick, figure—top or cord shuttle working

This is to be repeated throughout the entire design.

In laying out the design as just mentioned, it will be readily seen that the cord shuttle will lay in the cord on the first pick the shuttle makes, withdraw it on the next pick the same shuttle makes, and again lay it on this pick, leaving the terry effect on the first pick made. The filling shuttle binds it in with two picks so that it cannot be pulled out by the weight on the warp. Fig. 4 shows how the cord will be placed or laid and again be withdrawn. The ground or body ends are always warped separately from the terry ends. In this particular piece of fabric, three warps will be necessary; i.e., one for the ground ends, one for the colored ends, and another for the heavy terry stripes.

Care should be taken not to have too much weight on the terry ends, about one-half the weight (end for end) as on the ground ends will be about right. This of course is subject to change. Too much weight will pull out the terry after the cord leaves the pick.

The best cord to use in the cord shuttles is jacquard harness twine, well waxed. Size for this sample is 30/4 cord. Pull-out wires should be made of wire about $\frac{3}{16}$ in. in diameter. This is necessary so that wire will not bend when the cord is being pulled out.

◆

Warp Streaks in Cotton-Back Satin

Technical Editor:

We are enclosing herewith a sample of cotton-back satin showing a stripe-like effect running lengthwise on the cloth. This cloth is made from 20/22 Grand XX yellow silk, and as we buy this silk from two different firms, one lot may be a little darker shade than the other, with the result that when mixing the bobbins on the

warper creel this stripe-like effect is made. Will you advise us whether the dyer, when finishing this cloth, could overcome this defect; or, if it is the fault of the mill, how it could be remedied? (7318)

We believe that this defect was caused by the mill and that there is no way for a dyer to remove these streaks. We have examined the ends where the streaks have appeared and find a slight difference in the denier size. In making fabrics of this kind we would suggest keeping the different lots as separate as possible, unless you are compelled to mix them, and in that case we suggest that careful attention be paid to spotting bobbins on the warp creel.

◆

Oil Used in Silk Soaking

Technical Editor:

I have received your letter of September 22, enclosing comments by your chemist on his analysis of sample of soaked silk, in answer to inquiry No. 7264 in the Aug. 30 issue of TEXTILE WORLD. *I am glad to receive these comments, as they add still more to my appreciation for his very thorough and expert work, considering the size of the sample and the complicated nature of the soaking ingredients that it contained.* [*Mr. Hart's letter, together with our reply, appeared in our issue of Oct. 4.—Editor.*]

Since the water extraction was done at a temperature of about 120° F., there probably would be no trouble from emulsions (due to the dissolved sericin) when shaken with immiscible liquids. However, this temperature was not indicated in the original article and it was reasonable to assume that the extraction was carried out with boiling water, or at least hot water.

At any rate, water that is more than lukewarm would probably be required to extract quantitatively within a reasonable time samples containing appreciable quantities of soap, particularly if the latter were made from olive oil, tallow, oleic acid, etc. In other words, where as the method employed may be satisfactory in the case of straight or compounded sulfonated oils which contain little soap and are easily soluble, it does not seem to cover all cases, and evidently a general method is called for in dealing with an unknown sample.

The volumetric determination of soap by titration, suggested in my previous letter, is worth trying, particularly where the amount of soap is small. By the addition of salt and ether, the end point can be made very sharp. This method does not interfere with the subsequent analysis of the oil, and will determine with little effort small amounts of soap, which could be found by other methods only with great pains, if at all. For example, the sample in question contained about 0.4 gram of oil, consisting of apparently a mixture of approximately equal parts sulfonated oil and a fatty oil. Such oils usually contain about 5% soap, or 0.02 gram, as in this case. If the water solution of the extracted oil had been titrated with N/10 acid, it would have taken about ¾ of a c.c. to make it neutral to methyl orange—apparently a sizable quantity to work with. If a stronger acid were used, it would at least have indicated that there was some soap present.

RALPH HART,
The Hart Products Corp.

We appreciate the interest that you have shown in this matter and are in full accord with the sentiments expressed in your letter to the effect that, while the method which we employed for the determination of oils used in silk soaking may be satisfactory in the event of straight or compounded sulfonated oils which contain little soap and are easily soluble, it does not seem to cover all cases, and a general method is called for in dealing with an unknown sample. In the Oct. 4 issue of TEXTILE WORLD there was published an article by Messrs. Chamberlin, Hathorne, and Sargent on the "Determination of Moisture and Oil in Rayon." It is believed that the procedure recommended therein may well serve as a basis of a standard method for general adoption. In the case of silk, the presence of sericin makes exact determination under all conditions a more difficult procedure. Considerable work has been done along this line, however, and it is reasonable to believe that there can be set up a general method to be employed in dealing with unknown samples. The value of such a method is self-evident, and we shall be glad to receive from you and other readers further comments and suggestions on this subject.

◆

Cellulose-Acetate Bathing Trunks Fade and Tender

Technical Editor:

We are sending you some of our worn Celanese moire bathing trunks and swatches of material from three different mills, for your inspection. During the past season we have had numerous complaints on this kind of a bathing suit because the color is not fast to washing and light and because they break into holes. We have tried out cloths from various mills but still we get these unpleasant reports. We are asking you whether or not Celanese moire can be made to overcome the above trouble. Whatever information you may send us will certainly be appreciated. (7311)

The first point to be noted is that the fabrics all have a cotton filling with Celanese warp. This means that to dye a solid shade with the best and fastest dyes for the cellulose acetate fiber and still have the cotton match perfectly involves a rather careful and expensive dyeing operation. Dyes can readily be obtained that are of the best possible fastness to light and washing for the Celanese, but they do not dye the cotton; and cotton dyes of such brilliant shades can only be made with basic dyestuffs, which are notably fugitive. Therefore, we believe that the dyers have aimed to match the brilliant shades rather than to attain any degree of fastness, which must sacrifice brilliancy.

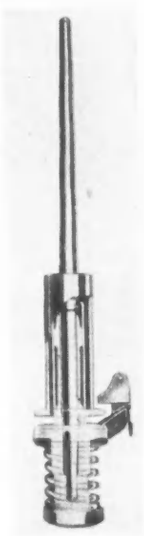
The moire finish does not appear to have affected the colors or tensile strength to any degree, but the worn garments show very plainly the effects of drastic laundering operations. The Celanese is very much saponified and delustered, showing that it has been subjected to the action of hot alkaline liquors. Celanese and all acetate silks are sensitive to the action of alkalies and strong soaps at temperatures above 175° F. They lose luster and become tender. If a laundry treats such fabrics in the same way it would treat cotton, it may only be expected that damage will result.

On the other hand, it has been reported by the Bureau of Standards that cellulose acetate in bathing suits is far more resistant to the tendering action of the bacteria in sea water than any other textile fiber. This fabric can be dyed fast with a combination of vat dyes and the best colors for cellulose acetate, in two operations, but the cost will be rather high, and even then any fifth-rate laundry can ruin them in twenty minutes.

New Machinery and Processes

Ball-Top Spindle

SEVERAL unique features are incorporated in the ball-top spindle recently introduced by the Atwood Machine Co., Stonington, Conn. Among these innovations is an improved step developed to give a cool-running spindle by supplying a constant and rapid circulation of a large volume of oil, and at the same time designed to reduce the frequency of oiling. Another improvement is a spindle lock—with manual release—which automatically locks the blade in the step and thus positively holds the spindle while doffing. Other features include a blade designed to run true and stay straight under severe operating conditions; an accurate balanced and centered whorl, machined all over; and precision bearings of close-grained metal to insure durability and smooth and easy running.

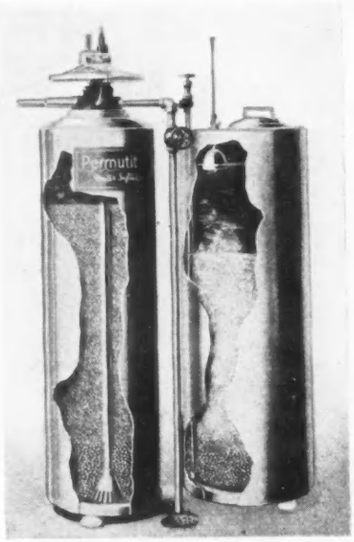


Ball-top spindle with improved step

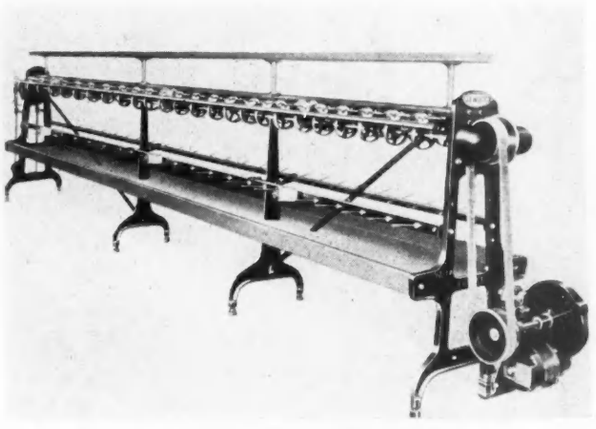
Small-Sized Water Softener

ZEOLITE water-softening units in small sizes have been placed on the market recently by the Permutit Co., 440 Fourth Ave., New York. These units are designed particularly for installation in small mills or for special applications in larger plants. One important application of the softeners is in full-fashioned hosiery mills, where soft water is particularly desirable in preparing the emulsion used for lubricating the yarn. Another of the many uses is for the treatment of drinking water.

These new water softeners can be obtained in two types (Model H and Model HS), and in a number of sizes. The operation is simple and is controlled by a large operating wheel mounted at the top. Hard water enters at the top of the softener shell, passes downward through the zeolite, enters a slotted cone which serves as a collector at the bottom, and flows up through a central pipe to service. After the equipment has softened the amount of water it is designed to handle, it needs to be regenerated. This process consists of passing a solution of common salt through the zeolite. In the Model HS, the solution of salt is always maintained in an accompanying salt tank. In the simpler Model H, salt solutions are made up as needed. This process of regeneration restores the zeolite, which is the active water-softening material, to its original full capacity. The cost of maintenance is small as it comprises only the value of the salt used in regeneration.



Cutaway view of small-sized water softener



Redraw frame with oilless bearings and other new features

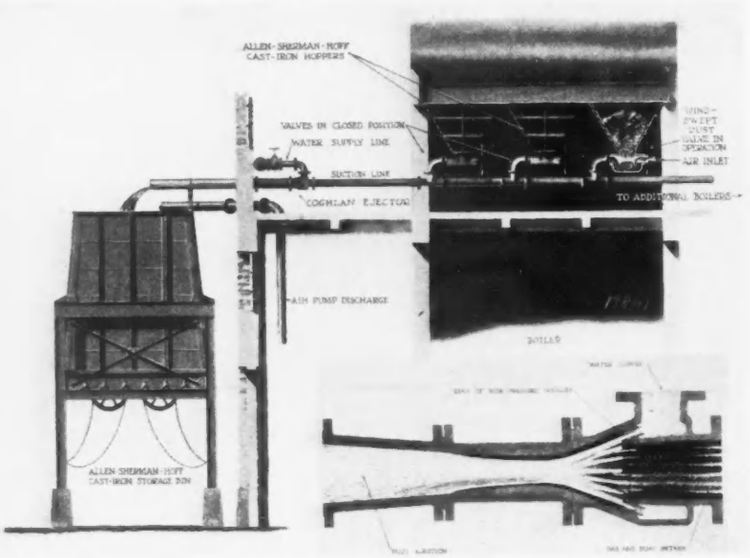
Silk Redraw Frame

The Atwood Machine Co., Stonington, Conn., announces the development of a new redraw frame known as the "Advance." The new machine is claimed to incorporate a number of advanced and exclusive engineering features. It has the same oilless features as the Stonington winder.

The drive is mounted as a complete unit assembly on the frame. The tension of the belt is adjustable by means of a thumb screw and lock nut, which permit sliding the motor up or down. Two changes of speeds are made possible by a step pulley, and other changes may be made by substituting different motor pinions. The motor is keyed to the frame to insure perfect alignment.

A strip of pressed fiber, known as the "fiber locking strip," is attached to the underside of the traverse bar, and contacts with the rollers. The protruding edge of this strip fits in a groove on the traverse finger and prevents the bar from being accidentally knocked off.

The spindles are equipped with springs to compensate for vibration due to high speeds and unbalanced bobbins. The delivery bobbins run either parallel to or at right angles to the machine. The cam construction has been made sturdier to improve the winding of the bobbins. Oilless bearings are used throughout. The machine has a frame of rigid tubular construction with sturdy brac-



Application of dust- and soot-handling system

ing, and is available both in single- and double-deck models. It is to be exhibited for the first time at the Southern Textile Show, Greenville, S. C., Oct. 20 to 25.

Dust- and Soot-Handling System

REMOVAL and disposal of soot, fly dust, and siftings encountered in coal-burning power plants are facilitated with the Hydrovac system of dust handling developed recently by the Allen-Sherman-Hoff Co., Philadelphia, Pa. In the modern power plant burning powdered coal considerable fly dust accumulates behind the last pass of the boiler, beneath the economizer and air heater, and in the stack breeching or in the dust collector. In the stoker-fired plant, fly dust accumulates at all of these points, and siftings also accumulate beneath the stoker. Disposal of fly dust and siftings presents a real menace in many plants, since considerable damage can be caused by the dust settling on moving machinery, raw materials in storage, or products in the course of manufacture. In the Hydrovac system, the totally enclosed, dust- and water-tight design minimizes this danger and assures cleanliness in the removal of soot and dust.

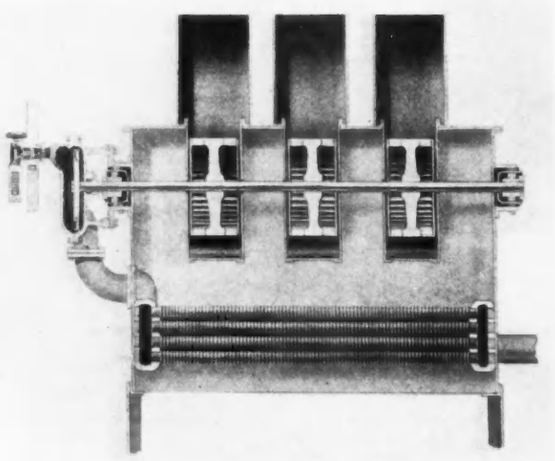
Dust and soot are removed in dry condition through a wind-swept valve, the dust being thoroughly mixed with water and discharged by means of a "Coghlan Type" Hydrovactor or ejector. The wind-swept valve is bolted to the bottom of the dust-collection hopper, the dust piling in the body of the valve. Ports are located on each side of the valve, one being connected to the suction line leading to the ejector, and the other serving as an air inlet. When the valve is not in operation, both ports are sealed by means of a rotary valve which extends through the body, thus preventing the infiltration of air through the unit to the dust-collection hopper. When dust is to be removed, the rotary-valve unit is turned 90° by means of an operating lever at the air-inlet end of the valve. This rotary valve has hollow ends; and when it is rotated, openings in the side of the cylinder coincide with the inlet and discharge ports.

The Hydrovactor, or ejector, consists of a ring of water nozzles fed from a circular header. Streams of water from these nozzles converge in the ejector. This action entrains the dust-laden air, producing a vacuum in the suction line between the wind-swept valve and the ejector. Air enters the open port of the valve, is pulled through the pile of dust in the valve, thus carrying the dust particles through the discharge port and suction line to the ejector. The water in the Hydrovactor thoroughly mixes with the dust particles, and the dust-laden water leaving the ejector passes through a discharge line to disposal. Since the vacuum produced in the wind-swept valve is in direct proportion to the quantity and velocity of the water in the Hydrovactor, it is impossible to overload or dam the system. Several wind-swept valves can be connected to a common suction line served by one ejector, only one valve being operated at a time. After leaving the ejector, the dust-laden water is piped to point of disposal. This may be the clinker chamber, discharge conduit of the Hydrojet system of ash removal, or to an overhead storage bin fitted with water-collecting gates.

The ejector can be installed in any position, and will elevate the dust-laden air, as required, for disposal into an overhead bin. This simplifies its installation in existing plants. Reliability of operation and a thorough cleaning of the dust hopper at each discharge, without unbalancing the draft conditions, are assured by producing a greater vacuum in the dust valve than inside the hoppers. The operation of the Hydrovac system is entirely automatic, and not dependent on any manual or mechanical regulation to control the flow of material.

Turbine-Driven Unit Heater

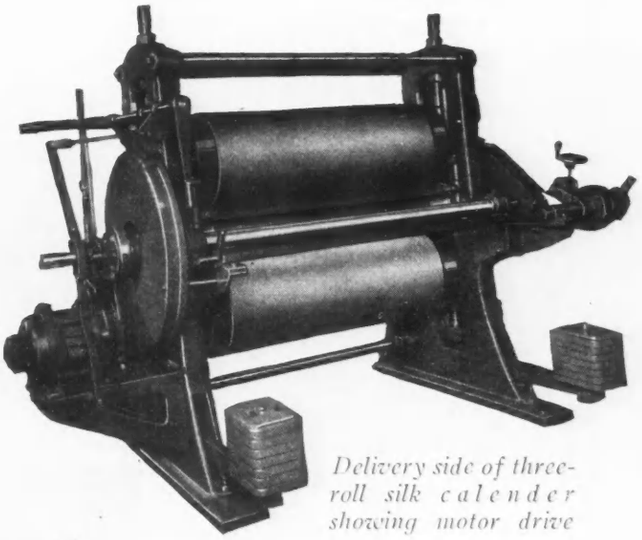
FOR heating mills, machine shops, and other structures having large floor areas, the Automatic Turbo Heater Co., 343 South Dearborn St., Chicago, Ill., has developed a turbine-driven unit heater. In this heater a steam turbine takes the place of the electric motor ordinarily employed for driving the ventilating fans. Steam entering the heater, instead of going directly to the coils, is led to the turbine where a small fraction of the heat is used to drive the fans. It is stated that, since less than 1%



Unit heater with turbine drive

of the heat of the steam is required to operate the fans, and since the necessity for an electric motor and appliance is eliminated, marked economies are made possible with the turbine-driven heater.

The unit is made in five sizes, in both floor and ceiling types. The steam turbine is of the impulse type, having steel rotor, stainless-steel buckets, and nozzle with adjustable needle valve. A thermostatic valve controls the amount of steam delivered to the turbine, as governed by room temperature. A condenser unit consists of $\frac{3}{4}$-in. copper tubes with metallicly attached, continuous spiral fins, and cast-iron headers. Although the headers will withstand a 200-lb. pressure, the operating pressure, being turbine exhaust, will never exceed 5 lb. Fafnir ball bearings which are of the self-aligning type with adjustable housings, support a cold-rolled, ground and polished shaft. Fans are of the centrifugal multi-vane type with die-stamped blades electrically welded to the retaining rings. The individual fans and the assembly are accurately balanced.



Delivery side of three-roll silk calender showing motor drive

Heavy-duty crane

Three-Roll Silk Calender

EASE of operation and durability are two of the important advantages claimed for an improved three-roll silk calender introduced recently by H. W. Butterworth & Sons Co., Philadelphia. Among the features of the new machine are included castings of high-tensile-strength Meehanite metal, Alemite lubrication throughout, and Hyatt roller bearings. Pressures up to 20 tons are attainable by means of readily operated compound leverages. The wool-felt and paper rolls are of a grade manufactured especially for the purpose, while the dividing roll is of chilled iron.

Finger guards of improved design and fully enclosed cut gears reduce to a minimum the possibilities of accidents to the operator. For starting and stopping the machine, a friction clutch is employed. Drive is through a 5-hp. constant-speed motor attached to the housing and requiring no bearing supports. The calender is fitted with a friction let-off at the entering side and a slip-belt winder at the delivery side. A Reedy anti-friction stuffing box is employed for the steam-heating connection.

Heavy-Duty Crane

A NEW type of heavy-duty crane, suitable for indoor or outdoor use, has been placed on the market recently by the Terminal Engineering Co., 17 Battery Place, New York. Applications of this machine are found in machine shops, manufacturing establishments, and mill yards. It is especially applicable, however, in any place where it is desired to make use of all available space, where crowded conditions make easy maneuverability a vital point, and in jobs where it is necessary to have a long reach horizontally as well as vertically.

The capacity of this crane is 3,650 lb. at a distance of 2 ft. from the end of the chassis, or 750 lb. at a distance of 14 ft. from the end of the chassis. The boom is telescopic over a distance of 6 ft. The boom and hook are operated independently from two separately-driven hoist units, each with its own motor and controller.

Four-wheel drive, with no mechanical differentials, but with a motor on each wheel, make the machine especially suited for operation both indoors and outdoors.

In order to give a maximum counterbalancing effect, the machine is so constructed as to concentrate as much weight as possible over the wheels away from the load. When the load is great enough to throw nearly all the weight on the wheels near the hook, thus reducing the traction on the other wheels, the crane still has motive power because all wheels are driven by individual motors.

The maximum height of lift is 17 ft. 6 in. on the standard model, although longer booms may be furnished if required. The machine can pass through doorways as low as 72 in. when the boom is lowered. Power is supplied to the crane from a storage battery which is large enough to operate an electric magnet, as well as to perform the propelling and hoisting duties. The battery is carried in one unit in a steel container and can be changed easily by the driver using an overhead hoist.

Some of the advantages claimed for the crane are as follows: Using cranes of this type, "traveling sky-hook" service can be given to any portion of an industrial plant. Loads can be carried, even over rough ground, because the boom is hinged to the truck frame. The turning radius is so short that loads carried hanging on the hook can be swung about a point only 2 in. from the side of the truck. The load is thus always kept safely over the center line of the chassis, no large space is taken up with dead-weight counterbalance, and there is no slewing mechanism to be damaged by shocks.

DURENE

REG. U.S. PAT. OFF.

NATURAL, BLEACHED AND COLORED

YARNS

MAIN OFFICE

123 SOUTH BROAD STREET

PHILADELPHIA

Manning St.
HIGH POINT, N. C.

432 Fourth Ave.
NEW YORK

418 Franklin St.
READING, PA.

323 So. Franklin St.
CHICAGO, ILL.

James Building
CHATTANOOGA, TENN.

52 Chauncy St.
BOSTON, MASS.

HAMILTON, CANADA

LOS ANGELES

MILLS

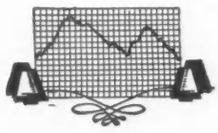
CHESTER, PA.

BELMONT, N. C.

ABERFOYLE MANUFACTURING COMPANY

Representatives in All the Principal Countries of the World

TEXTILE WORLD ANALYST



Somewhat Lower Wool Prices Probable

Wools Are Now Relatively Highest of Textile Fibers and Supplies Are Ample, Says Dr. Haney

Summary: **Evidence that wool supplies are ample continues to appear. On the other hand, the general business depression makes demand backward, and wool manufacturing activity has declined. Accordingly, prices have weakened both in domestic markets and abroad. It is notable that foreign prices on some grades are approaching the import point. Somewhat lower wool prices are probable. In view of the moderate demand for cloth and yarns, it follows that their prices are also likely to decline.**

●

The analysis and forecast by Dr. Lewis H. Haney, Director, New York University, Business Research Bureau, which regularly appears on this page, considers various branches of the textile industry from week to week. The conclusions reached in the Analyst are mostly forecasts and generally apply to a time two or three months ahead. The Analyst is based on statistical data and does not reflect temporary trade sentiment.

ANOTHER month of disappointment in the amount of lightweight business done has passed. A brisk demand for women's dress goods and for knitting yarns does not offset a generally poor demand condition. Naturally there is no hurry to buy, for raw wool and wool textile markets are easy and in the buyer's favor.

In the face of curtailed purchasing power and depressed business conditions, the stabilization of domestic raw wool prices has been ineffective in stimulating demand for wool textiles. There is some ground for believing that lower raw wool prices are desirable for two reasons: (1) Lower textile prices are narrowing the manufacturer's margins at a time when the turnover is small, and several mills have closed permanently; (2) The manipulated domestic market will tend to attract foreign wools. As they are getting down to parity despite the new tariff, the raw wool supply problem may become rather embarrassing later in the season. For the present, no bullish forecast of prices is in order, either for raw wool or its products.

Favorable Factors

1. Fine merino grades held at the opening quotations during London auctions.

2. The domestic market has held up fairly well, notwithstanding a dull goods market.

3. Trade reports estimate that 60% of the supply held by independent dealers has been disposed of. The marketing corporation is not unloading on a dull market. Manufacturer's supplies are believed to be small.

4. Receipts at Boston have begun to decline.

5. The Texas fall clip is estimated to be 4,000,000 lb. below last year's.

6. A brisk demand is reported for worsted knitting yarns.

7. The Wool Institute reported August billings of goods increased 7%, while stocks declined nearly 14%.

8. Wholesale dry goods sales and department store sales increased more than average during August.

9. The retirement of several mills will lessen competition in wool manufacturing.

Unfavorable Factors

1. Foreign primary markets are easy, with new clips approaching from southern hemisphere countries. The carryover in these countries is the largest since 1925. Disturbances in Argentina may cause the clip there to be dumped.

2. The London market is estimated to be 10% above parity with Australia, and is said to be out of line with Bradford top and yarn prices. Withdrawals were frequent, and offerings were curtailed in the last series.

3. Foreign prices are near the importing point.

4. Sales by the marketing corporation are reported to be below the normal relation to stocks.

5. Manufacturing activity on the Continent has turned dull following the strike settlement at Bradford.

6. Mill consumption in the United States declined in August.

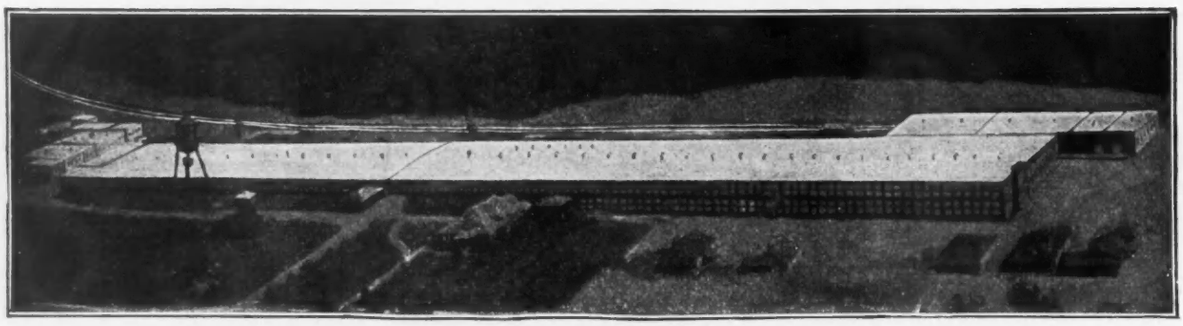
7. Receipts at Boston have been large compared with consumption. This suggests an accumulation of stocks.

8. Machinery activity declined in August, adjustment for seasonal variation being made.

9. On the basis of average relationships over a long period of years, wool is now the highest priced textile fiber.

10. Automobile specialty lines are depressed by further curtailment in automobile production.

An analysis of the above bull and bear points, indicates that the balance favors lower raw wool prices. The unfavorable factors are more immediately important. Weakness abroad is bringing foreign wool nearer parity with competing grades of domestic wool, and world-wide economic depression indi-



Spinning Mill, Lincolnton, N. C.

A BETTER STOCKING AT LESS COST

To meet the low prices that the hosiery manufacturers are getting for their hosiery today they are compelled to reduce their costs. Costs can be reduced by having less press-offs, less uneven plating and by increasing the speed of their machines. To meet these demands for better running yarn we are now making a **FINE MULE SPUN SEA ISLAND YARN**, which, owing to its greater elasticity and strength reduces press-offs to a minimum, giving a much more even plating, especially on high-speed machines. The very high lustre of this yarn will also increase the general appearance of the stocking.

Owing to the success our customers have had with this **FINE COMBED SEA ISLAND YARN** for picot edging, many of them are already using it with equal success for plating and reinforcing.

We can supply you with this yarn, which is not only fine as to quality, but in count also, in all numbers from 50/2 to 160/2 mercerized and from 160/2 to 200/2 in lisle.

This yarn can also be used for making fine lisle stockings.

Write today for samples.

BOGER & CRAWFORD

"From the Cotton Field Direct to You"

J and E. Venango Sts.
PHILADELPHIA, PA.

cates that this tendency may continue. Although prices declined 5 to 10% at London, that market is still reported to be 10% above parity with Australia. Curtailment of offerings and withdrawals only postpone the readjustment. Bradford is said to be the cheapest market.

In this country, the stabilization of raw wool by the marketing corporation is gradually leading to a situation in which it will be cheaper to import wool. Another effect is that wool is relatively dearer than cotton or silk, and in recent months has been relatively higher than commodity prices in general. Certainly this maladjustment is not likely to stimulate demand for raw wool as a competing textile fiber.

Manufacturing Activity Declines

Activity in wool manufacturing has been lower in recent months. It is following the trend of general business. Woolen spindles in September made a new low for the year. Mill consumption has declined since July. Although the P/V Line is showing some signs of an upturn, it is still well below normal and, as yet, indicates no sustained revival in general business in the near future.

Yarn Position Weaker

Although there has not been much change in yarn prices during recent months, a weakening tendency cropped out in late September. The Textile World index of worsted yarn prices in September was unchanged at 77.8% of the 1921-1928 average. This compares with 92.6% a year ago. Apparently the September decline came too late to affect the monthly average.

Reasons for the decline are not hard to find. The raw wool price decline abroad led to ease in some grades here. Although spindle activity has shown a downtrend for several months, loom activity has made an even less favorable showing. Knitting demand may account for some of this difference, but there is some suggestion that the production of goods is not large enough to warrant the maintenance of the current level of yarn production. Lower yarn prices seem to be in prospect. However, only moderate declines in the replacement margins of spinners are to be expected unless the price for raw wool is artificially maintained.

Cloth Markets Dull

Wool cloth markets are disappointing, and furnish no basis for expecting any great expansion in the demand for raw wool. Prices for woolen and worsted goods have been reduced further. The index of the Bureau of Labor Statistics during August fell to 85.5% of the average for 1921-1928. This compares with 86.6% in July and 95.2% last year.

This decline in goods prices, together with firmness in raw wool, has resulted in a further decline in the replacement margins of the average wool textile manufacturer. Since loom activity was reduced in August, and remains at a low level, it is obvious that the difficulty is on the demand side.

The Wool Institute reported a substantial decline in stocks and an increase in billings, which indicate that supplies are moderate. Whatever indications there are of textile demand, however, are unfavorable. Wholesale dry goods sales increased slightly in August, but are far below the level of a few months ago.

It is not unlikely that the recent stability of raw wool may find some reflection in firmer goods prices, but until the existing maladjustment in the cloth situation is eliminated, any changes will probably be on the down side.

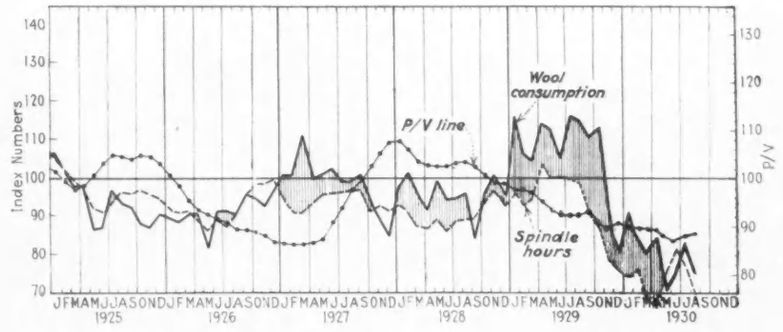


Fig. 1. GENERAL BAROMETER OF WOOL INDUSTRY: Wool Consumption—Grease equivalent; adjusted for number of working days and seasonal variation, 1921-1928 = 100 (Dept. of Commerce). Spindle Hours—Average of woolen and worsted spindles, per cent active hours to total; adjusted for seasonal variation, 1921-1928 = 100 (Dept. of Commerce). P/V Line—Ratio of general commodity price index to volume of trade (Bureau of Business Research).

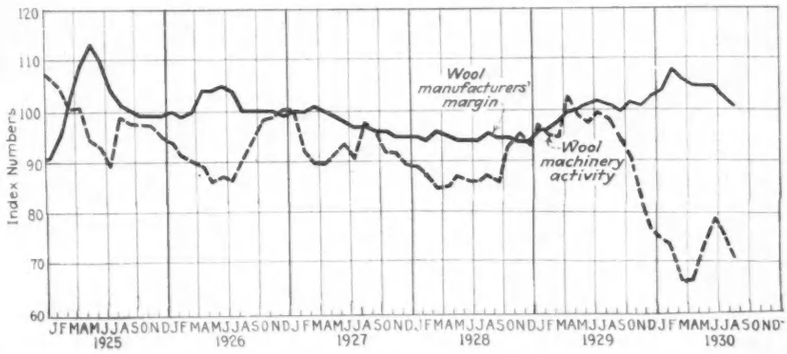


Fig. 2. WOOL MANUFACTURERS' MARGINS AND ACTIVITY: Wool Manufacturers' Margins—Average of Replacement Margins; Wool Machinery Activity—Composite of Loom and Spindle Activity, adjusted for seasonal variation; Average 1923-1927=100 for both indexes.

The Textile Trend

Cotton Textile Markets: Because of the improved statistical position of goods markets, prices have not been influenced by a less active demand the last two weeks nor by further weakness in the commodity and financial markets during part of this period. Reason for this is to be found in reduction of stocks while inquiry and sales have been expanding relatively. Several houses report most active demand for colored goods of the year.

Wool Textile Markets

Wool goods markets were quick to feel the benefit of cooler weather in most sections of the country which counter-balanced slowing of trading by the Jewish holidays during the last two weeks. Men's wear season is slow to get started, sample orders being the rule to date, while dress goods lines are selling in much better volume than this time a year ago. There has been a better demand for topcoatings, following cooler weather. Certain lines are reported difficult to locate in quantity for prompt shipments.

Knit Goods Markets

Cool weather has brought a healthier tone to the knit goods markets, and all three divisions now enjoy fair movement. Half-hose, particularly the 25c.

A flexible yarn source for knitters

CANNON'S ABILITY to satisfy diverse yarn needs quickly is well known. Knitters find in our complete range of numbers—our conveniently located sales offices—a yarn service that is well nigh indispensable.

CANNON YARNS, both carded and combed, are used by a host of knitters who are alert to the ever-changing modern trend and who know how to meet it. Let us help you too.

CANNON MILLS

INC.

PHILADELPHIA

New York	Providence	Boston
Reading, Pa.	Chicago	Utica, New York
Chattanooga	Kannapolis, N. C.	Hamilton, Ont., Canada

Sales Agents for

EWING-THOMAS CORP.
MERCERIZED YARNS AND THROWN SILK
AMERICAN ENKA RAYON

IMPORTED DUTCH ENKA RAYON FOR THE SOUTHERN STATES

CANNON YARNS

and 35c. lines are selling well; prices are still wavering, but the increased demand has encouraged knitters to hope for early firming. Women's full-fashioned and seamless show little improvement; there is a good turnover, but prices are decidedly off. Heavyweight underwear is firm, and mills are behind in shipments; producers expect heavyweight underwear business to continue active for another six weeks; fall sales in some cases are above normal. Rayon underwear is in fair call; there is little interest in spring cotton lines. Sweater demand features outerwear; both staples and fancies are selling. and deliveries are backward; considerable future business has been placed on 1931 bathing-suits.

Silk Textile Markets

Raw silk is down again, after a brave effort to rally, which lasted several days; prices are slightly below last week, and buying is even more hesitant. Outlook for primary market is dubious, with no one venturing any predictions. Thrown yarn is slightly improved thanks to good call for grenadine twist yarns for hosiery production; trams in moderate demand. Spun silk is quiet at all ends. Broadsilk demand has strengthened, and mills have difficulty in meeting spot call for cantons.

Cotton Market Irregular

Bullish Sentiment on Ultimate Values Meets Fear of Increased Movement

THE rally which followed the late September decline on increased trade buying that came into the market on the break to 10c.-level for near months, was accelerated by covering in preparation for the Government's crop report. An advance of some 50 or 60 points from the lowest was checked by a renewal of southern hedging, however, and prices weakened again with all the more active positions making new low ground for the season just before the official crop estimate was issued on Wednesday of this week. The new October contract, in which, however, little interest remains, sold off to 9.85, while the new December touched 10.13 and March 10.45 under this pre-bureau pressure which was attributed largely to liquidation of old long accounts. Evidently the market had been prepared for a crop indication slightly above the Sept. 1 figures, however, and the publication of the estimate was followed by a moderate rally on covering.

Government Crop Report

The Government report of Oct. 8 made the condition of the crop 53.5 compared with 52.2 the previous month, the indicated yield per acre 154.7 against 153.2 and the indicated production 14,486,000 bales of 500-lb. gross compared with 14,340,000 in the report as of Sept. 1. This report was above the average of the private reports which preceded it, but which had exercised little influence in the pre-bureau market. It was about in line with the expectation of New York Cotton Exchange members as indicated by a canvass on Monday showing an average of 14,443,000 bales. The market acted as if the Government report had been pretty well discounted, except for some extremists both ways. Those who had been expecting an estimate of 14½ or over, covered on the figures, while there was some buying by people who had anticipated a reduction in the forecast.

This new crop figure necessitates no particular change in calculations of the statistical position. On the basis of average bale weights for the last four seasons, it points to a crop in running bales of approximately 14,286,000. The carry-over of old crop cotton at the beginning of August, according to the average of the three best known authorities, amounted to 6,176,000 bales. Adding to this the crop of 14,286,000 running bales and an allowance of 200,000 bales city crop etc., gives a total available world's supply of American lint of 20,662,000 bales. This compares with last season's world's consumption of only a little over 13,000,000 bales, but American cotton is selling on a competitive basis with other growths this year, and some authorities think it possible that world's consumption for the current season may be in the neighborhood of 14,300,000. This figure contrasted with the indicated total supply certainly holds out no threat of scarcity, even though allowance be made for the holding of 1,300,000 bales of the carry-over in this country by the Cotton Stabilization Corp. which has stated it will not market this cotton (or if any of it is sold, that it will be immediately replaced) before the end of this season, unless prices advance to the cost level which would be 16c. a pound or slightly above.

Nevertheless opinions heard in the trade if evidenced only by scale-down buying in the immediate market, indicate great confidence in values as a long range proposition. The feeling in some quarters is, indeed, that cotton at the low prices of this autumn will probably prove the lowest for the next two or three years.

The ginnings of 6,304,608 bales, reported prior to Oct. 1, represented about 44.1% of the indicated crop in running bales. The average percentage ginned to that date is in the neighborhood of 38.5% but in 1927 the ginnings to Oct. 1 represented 46.5% and in 1925, 44.2% of the final outturn.

Competition Reported at Memphis

Memphis, Tenn.—The basis on staple cottons here is officially quoted unchanged from the previous week, but it is necessary to cut the quoted basis nearly half to effect sales. Cotton is selling in the interior at 25 to 50 points below the Memphis price. Shippers say they have reason to believe the co-ops are attempting to undersell them, for which reason they find it necessary to reduce the paying basis to meet the competition.

Shippers deny the existence on their books of any considerable volume of forward business and therefore leave it to be assumed that they are buying mostly for stock. Demand centers on cottons that can be tendered without penalty, possibly with the purpose of seeking an outlet through the futures markets in the event the usual outlets prove disappointing; cotton obtainable on tenderable basis is eagerly sought, especially by the larger firms. The seller is decidedly on the defensive; a few are meeting their problem by holding but by far the larger number is going into the co-ops or selling on call.

Rather slow progress is being made with harvesting in this territory. Ideas as to the delta crop are being raised; conservative opinion now places it at about 650,000 bales. The weather during the week was favorable for harvesting over most of the belt. Ginnings are well advanced in practically all sections and nearly completed in some.

Cotton Knitting Yarns Improve

Orders Are Smaller But More Numerous

"NOT half bad" is a good way to describe the cotton yarn market this month, trading being seasonally improved but not up to the activity of September. It should be recalled that September was the most active this year with many representative selling houses. Manufacturers are more active than they have been and more trades have been buying yarns, although sentiment has changed to the extent that fewer are asking for far-off deliveries.

Buying has been more of hand-to-

"WE SEE BY THE PAPERS . ."

IT is the function of the press to print the news. The columns of the press reflect public interest quite as much as they contribute to public opinion. That is one reason why magazines and newspapers—from New York to California and from Florida to Maine—have "covered" cotton as the big fashion news of the year—for instance:

"Cotton is more prominent in the making of women's garments than it has been for many years."— NEW YORK TIMES

"Back from Elba comes Old King Cotton."— NEW YORK EVENING POST

"The Lure of Cotton is manifest in Resort Wear."— NEW YORK EVENING WORLD

"Cottons now have a position of prestige."— DAILY NEWS RECORD

"It would seem Cottons will be strongly favored in beach clothes."— TEXTILE WORLD

"Fashion Favoring Cottons for Town."— JOURNAL OF COMMERCE

"In February, 1929, the Institute launched its campaign in favor of the style trend toward cottons. An amazing lot has been accomplished with it."—BIRMINGHAM (ALA.) AGE-HERALD

"The Formal and Informal of Cottons"—title of a double page spread in HARPER'S BAZAAR.

"Cottons—the latest proteges of the Paris Couture"—title of a double page spread in VOGUE.

—And hundreds more that space will not permit printing.

BUT, the fashion news of cotton runs deeper than headlines. It rests on the FACTS—that remarkable achievements have been made in styling and design; that cottons possess in high degree every one of the qualities to make them fashionable—wearable—desirable. And so the facts were assembled, studied and presented carefully, consistently, systematically, frankly—and we believe successfully—in a well balanced educational program of advertising, style exhibits, fashion bulletins, radio talks and motion pictures, sponsored by a group of leading interests in the cotton industry through The Cotton-Textile Institute.

THE COTTON-TEXTILE INSTITUTE, INC.

320 Broadway, New York City

These are the far-sighted firms whose money made this campaign possible

Aberfoyle Mfg. Co., *Chester, Pa.*
Acme Finishing Co., *Pawtucket, R. I.*
Alabama Mills Co., *Birmingham, Ala., Aliceville, Clanton, Dadeville, Fayette, Greenville, Haleyville, Jasper, Russellville, Wetumpka, Winfield.*
Aldrich Bros., *Moosup, Conn.*
American Printing Co., *Fall River, Mass.*
Anderson, Clayton Company, *Houston, Texas*
Aragon-Baldwin Cotton Mills, *Chester, S. C., Rock Hill, S. C., Whitmire, S. C.*
Arcade Cotton Mills, *Rock Hill, S. C.*
Arcadia Mills, *Spartanburg, S. C.*
Aspinook Company, *Jewett City, Conn.*
Avondale Mills, *Birmingham, Ala., Alexander City, Ala., Pell City, Ala., Stevenson, Ala., Sycamore, Ala., Sylacauga, Ala.*
Joshua L. Baily & Co., *New York City*
Baltic Mills, *Baltic, Conn.*
Jos. Bancroft & Sons, *Wilmington, Del., Reading, Pa.*
Bellman Brook Bleachery, *Fairview, N. J.*
Berkshire Fine Spinning Associates, Inc., *Adams, Mass., Fall River, Mass., North Adams, Mass., Williamstown, Mass., Albion, R. I., Providence, R. I., Warren, R. I., North Pownal, Vt., Brattleboro, Vt.*
Bliss, Fabyan & Co., *New York City*
Boott Mills, *Lowell, Mass.*
Borden Mills, *Kingsport, Tenn.*
Bradford Dyeing Association, *Bradford, R. I.*
Brandon Corp., *Greenville, S. C., Woodruff, S. C., Traveller's Rest, S. C.*
Bristol Mfg. Corp., *New Bedford, Mass.*
Brookside Mills, *Knoxville, Tenn.*
Butler Mill, *New Bedford, Mass.*
Cabot Mfg. Co., *Brunswick, Maine*
Calhoun Mills, *Calhoun Falls, S. C.*
Callaway Mills, *LaGrange, Ga.*
Catlin-Farish Company, *New York City*
Chadwick-Hoskins Company, *Charlotte, N. C., Pineville, N. C.*
Chesnee Mills, *Chesnee, S. C.*
Chiquola Mfg. Co., *Honea Path, S. C.*
Clifton Mfg. Co., *Clifton, S. C.*
Consolidated Selling Company, *New York City*
D. E. Converse Company, *Glendale, S. C.*
Cramerton Mills, *Cramerton, N. C.*
Cranston Print Works, *Cranston, R. I.*
Dallas Mfg. Co., *Huntsville, Ala.*
Davis Mills, *Fall River, Mass.*
Deering, Milliken & Company, *New York City*
Drayton Mills, *Spartanburg, S. C.*
Duncan Mills, *Greenville, S. C.*
Easley Cotton Mills, *Liberty, S. C.*
Erwin Cotton Mills, *West Durham, N. C., Cooleemee, N. C., Erwin, N. C.*
Galey & Lord, *New York City*
Gluck Mills, *Anderson, S. C.*
Gossett Mills, *Anderson, S. C., Pendleton, S. C., Williamston, S. C.*
Grosvenor-Dale Corp., *North Grosvenor Dale, Conn.*
Harmony Mills, *Cohoes, N. Y.*
Hartwell Mills, *Hartwell, Ga., Toccoa, Ga.*
Hunter Mfg. & Commission Co., *New York City*
Indian Head Mills of Ala., *Cordova, Ala.*
Inman Mills, *Inman, S. C.*
Iselin-Jefferson Co., *New York City*
Ivey Mill Corp., *Hickory, N. C.*
Judson Mills, *Greenville, S. C.*
Jno. P. King Mfg. Co., *Augusta, Ga.*
B. B. & R. Knight Corp., *Providence, R. I., Arctic, R. I., Natick, R. I., Pontiac, R. I., West Warwick, R. I.*
Laurens Cotton Mills, *Laurens, S. C.*
Lawrence & Co., *New York City*
Lawton Mills, *Plainfield, Conn.*
Lonsdale Company, *Lonsdale, R. I., Ashton, R. I., Berkley, R. I., Hope, R. I., Blackstone, Mass., Seneca, S. C.*
Manville Jenckes Co., *Pawtucket, R. I., Gastonia, N. C., High Shoals, N. C., Central Falls, R. I., Georgiaville, R. I., Woonsocket, R. I.*
Maverick Mills, *East Boston, Mass.*
Middlesex Bleach & Dye Works, *Somerville, Mass.*
Mills Mill, *Greenville, S. C., Woodruff, S. C.*
Monarch Mills, *Union, S. C., Lockhart, S. C.*
Mt. Vernon-Woodberry Mills, *Baltimore, Md., Tallasee, Ala., Columbia, S. C.*
Nashawena Mills, *New Bedford, Mass.*
Nashua Mfg. Co., *Nashua, N. H., Lowell, Mass.*
Neild Mills, *New Bedford, Mass.*
Oconee Mills Co., *Westminster, S. C.*
Pacific Mills, *Lawrence, Mass., Dover, N. H., Columbia, S. C., Lyman, S. C.*
Passaic Print Works, *Passaic, N. J.*
Pelzer Mfg. Co., *Pelzer, S. C.*
Piedmont Mfg. Co., *Piedmont, S. C.*
Potomska Mills, *New Bedford, Mass.*
Queen City Cotton Co., *Burlington, Vt.*
Reeves Bros., *New York City*
Republic Cotton Mills, *Great Falls, S. C.*
Riverdale Mills, *Enoree, S. C.*
Robertson Bleachery & Dye Works, *New Milford, Conn.*
Saxon Mills, *Spartanburg, S. C.*
Scranton Lace Company, *Scranton, Pa., Clarks Summit, Pa.*
Spartan Mills, *Spartanburg, S. C.*
Spencer Corp., *Spindale, N. C., Rutherfordton, N. C.*
Steele's Mills, *Rockingham, N. C.*
J. P. Stevens & Co., *New York City*
Sudanette Co., *New Bedford, Mass.*
Suncook Mills, *Suncook, N. H.*
Totokett Mfg. Co., *Norwich, Conn.*
Tripp, Kory & Genne, *New York City*
Turner Halsey & Co., *New York City*
Union-Buffalo Mills, *Union, S. C., Buffalo, S. C., Fairmont, S. C.*
United Merchants & Mfrs., *Boston, Mass., Jewett City, Conn., Fall River, Mass., New Bedford, Mass., Newton, Mass., Bath, S. C., Clearwater, S. C., Langley, S. C.*
United States Finishing Co., *New York City, Norwich, Conn., Sterling, Conn., Cedartown, Ga., Pawtucket, R. I., Providence, R. I.*
Victor Monaghan Company, *Greenville, S. C., Arlington, S. C., Greer, S. C., Walhalla, S. C.*
Victory Mfg. Co., *Fayetteville, N. C.*
Waldrick Bleachery, *Delawanna, N. J.*
Wallace Mfg. Co., *Jonesville, S. C.*
Wamsutta Mills, *New Bedford, Mass.*
Warren Mfg. Co., *Warren, R. I.*
Warwick Mills, *West Warwick, R. I.*
Watts Mills, *Laurens, S. C.*
Ridley Watts & Co., *New York City*
Wellington Sears & Co., *New York City*
Wilson & Bradbury, *New York City*
Woodward Baldwin & Co., *New York City*

mouth character but to off-set this there have been more mills asking for yarns and a larger number of lines represented. Knitters, for example, are taking yarns for prompt shipment, both medium-weight and light-weight counts asked for, which is a change from previous weeks when activity was reported from weavers and nothing from knitters.

Combed Is Neglected

Carded qualities have the call as in recent weeks and combed yarns are being neglected. Main reason for this, and lack of confidence among manufacturers, is that mercerizers are not buying. When this trade is not buying it is almost impossible for combed spinners to do a healthy business.

Neither single nor ply combed yarns are moving in quantity and reports from Gastonia indicate that mills in that section are operating at about 40% of normal capacity, which is quick proof that these spinners have not yet taken part in the improvement seen in carded weaving yarns for the last two months. Demand for mercerized yarns must first expand before processors will be interested, and this has yet to make its appearance.

Processors report larger specifications and a fair increase in day-to-day bookings, but volume business is still lacking. It may be that combed spinners will receive help first from knitters and that large hosiery and underwear mills will soon be taking large amounts of single combed.

Will Combed Come Back?

Reason for this prediction is low prices of combed yarns. When combed reached such low levels in the past it meant manufacturers in instances instead of lowering prices of goods used combed yarns where they had previously used carded. There is a decided belief that this will take place this year and manufacturers instead of lowering prices may use combed knitting counts and merchandise their garments at or about the former prices.

Old Contracts Completed

One of the outstanding developments is the reduction of unfilled contracts, spinners reporting that bulk of old and higher priced contracts on their books are being rapidly completed. A few weeks back this was cause for worry on their part and among selling houses. It no longer is an important factor in carded, but continues to be a factor in mercerized qualities.

Although all manufacturers are consuming more yarn than in August and most of them more than last month, best trading has been found with upholstery and drapery concerns this week, medium sized sales being the rule. Sales are smaller and future buying is less, but the volume of quick delivery orders was as large this week as any during the last three. The cheering feature has been increased interest from knitters and this is expected to expand materially more in next few weeks.

Prices are slightly lower than last week although changes have not been important. This week numerous sales of 20s-2 warps of average grade have been made at 22c. which was on low side last week but other counts are little changed. Speculative numbers such as 20s-2 and 30s-2 eased while odd counts are not changed. Carded knitting yarns are quoted at same prices as last week and sales have been at this level, 20½c. for 10s being fair.

◆Cotton Waste Market Inactive

Boston.

LACK of any demand of consequence is still the chief feature of the cotton waste situation as reflected in Boston centers. The attention of the trade this week was focused on the probable size of the new cotton crop which will have an important bearing on prices of and demand for wastes during the next month or two. Despite the fact that the output of comber has been greatly restricted during the last two or three months, owing to curtailment in the New Bedford district, the chief producing center, and the additional fact that current values appear relatively cheap, there is no disposition on the part of consumers of this desirable waste to anticipate their needs.

Prices Are Softer

Prices were somewhat softer this week. Peeler comber was off about ¼c. from prices ruling a week ago. Peeler strips which are in relatively large supply sold off to 7½ to 7¾c. while Upland strips could be obtained at 7½c. Threads were fairly active and unchanged in price. Picker and fly continue dull on the market.

Goods Hold Firmer Than Cotton

Denims and Chambrays Lead Week's Business

FALLING off in sales of cotton goods during the last two weeks is not a cause for worry among selling houses, but is regarded in the light of a natural reaction to conditions. Fundamentally this trade has improved immeasurably the last month and orders on hand are larger than stocks in several divisions.

Sellers have no complaint to make about the amount of business in hand, but they are strong in asserting they are not able to sell at figures that leave a fair margin of profit for the manufacturers. In view of the action of demand and prices during the last month, improvement in this respect may not be far off. Current reports show that goods prices are holding more firmly than yarns or raw cotton.

Future Deliveries Wanted

The fact that several houses are not pressing for additional business in lines that were active three weeks ago is causing interest from buyers for more extended deliveries and sellers report inquiries for January, February and March shipments. Buyers in this frame of mind are not being received with open arms in Worth Street, in view of their unwillingness to sell output at prices leaving them such a small margin.

During the last week demand fell off which was natural in view of weakness in stock and commodity markets. Despite this sales of colored goods were in excellent volume not only in denims but in chambrays, certain lines of the former selling best this year. One of largest factors reports that while demand was slightly less active, sales were approximately 25% in excess of actual production, continuing the tendency to reduce stocks.

That goods prices have held steady while cotton, and, to a lesser degree, yarns, were hesitating or going back gives the impression that goods prices will hold more steadily than the raw material when weakness is apparent, and will be relatively stronger when a trend in an upward direction comes. Main reasons for this are the working off of stocks and the amount of new business developing from day to day.

Raw Wool Materials Steady

Larger Wool Buying; Substitute Demand Continues Sluggish

SUMMER Street is in a somewhat cheerful mood on larger business, and, while not anticipating any readiness on the part of mill buyers to pay more on further purchases, is nevertheless confident that lower values will not be recorded and that the market for domestic wool will remain firm and stable for the balance of the year. This view is held despite whatever developments may occur during that period abroad. The foreign markets never held

Highest Grade RAW *and* THROWN SILK

Especially for
HOSIERY MANUFACTURERS

OUR own direct source of supply in Japan insures a uniform quality of the very best grade of silk obtainable.

NEW YORK OFFICE:
267 Fifth Avenue
Canadian Representatives:
W. J. Westaway Company, Ltd., Hamilton, Ontario
JAPAN OFFICE: Teisan Bldg., Yokohama

less interest for domestic wool sellers than at this time. Carpet wools are a different proposition. Importing will continue normal, the magnitude of the imports depending solely upon business conditions existing in rug and carpet manufacture.

Lower prices on crossbred wools at the London sales and the near approach of large arrivals of similar wool in the New Zealand and South American markets have brought about an easier price situation for similar wools in bond at Boston. The total amount in bond is small, but this has not prevented some reaction. The fine Australian and New Zealands have to date been affected only slightly; the lower grades of New Zealand and all the South American crossbreds are off approximately 6%. Weakness in crossbreds in the foreign markets is the result of large prospective supplies. It is generally realized that there will be more than sufficient raw material in crossbred grades to satisfy all requirements. Foreign holders of crossbred wools are endeavoring to get rid of their holdings in anticipation of lower openings in New Zealand and South America.

Boston Wool Stocks

Total receipt of wool into Boston thus far this year amounts to 282,500,000 lb. as compared with 265,600,000 lb. in the same period last year, a net increase of 16,900,000 lb. As against this net increase there has been a net decrease in shipments of 30,000,000 lb., so that on the face of the showing there is somewhere about 50,000,000 lb. more wool in the city than was the case a year ago. It is possible that motor-truck delivery has been larger than a year ago, in which case wool stocks would be larger than above indicated and yet on the other hand deliveries may have been smaller, which would make the total stock at this time larger than the amount shown.

Spinners and others are pressing for lower prices on tops but are not making much headway. The Bradford 64-66s staple top is firm at 98c. to $1 with the dry-combed French top around 64s steady at 94 to 95c. Half-blood tops grading 60s are steady at 90 to 92½c., high three-eighths blood from 82 to 83c., average three-eighths blood, 56s at 75 to 77c. and quarter-blood around 70c. Business in crossbread tops 46s and below, whether from domestic or foreign wools, continues in slow demand. A general decline has occurred during the week in the Bradford market.

Wool Rags Still Inactive

Opinion in reworked wool circles is still conservative and there is no tendency to over-emphasize the slightly increased business. Cloth looms of the country are running well below normal production and the preparatory machinery is not discounting any larger activity in fabric output. It is an exceptionally dull wool rag market and there is little that graders can do to effect any change for the better. Any policy of price-cutting would be of no avail. Mills do not want rags except in small quantities and the price is secondary. Foreign rag stocks are just as difficult to move as those of domestic origin. It is difficult to say how much foreign and domestic capital is tied up in imported materials brought in prior to the new tariff. The situation for year to date has been a great disappointment to importers, who, although buying on low foreign markets, have been confronted by such dullness in American demand that selling at a distinct loss has been their only choice.

Wastes Move Slowly

The wool waste market is awaiting developments in the lightweight goods market and is also anticipating repeat orders as well as new business in heavyweights. The market seems turning to a larger business in the cheap stocks of white and colored worsted waste. Fine white threads are less active. Speculative business seems to be on the increase in fine and medium-colored threads which are on a relatively low basis. It is surprising that there has not been any importing of garnetted threads but a single bale arriving during the week may be the forerunner of business of this kind. In paragraph 1105 of the new tariff the duty on garnetted wastes is given at 26c. per pound, and that on thread and yarn waste 25c. per pound. Some weeks ago Bradford noted this apparent favor shown to garnetted materials but the Boston trade, so far as it is known, has not taken advantage of this "joker."

Noil Values Hold Firm

Noil producers are not disposed to accommodate themselves to demand for lower values covering production over the next two or three months. Lack of demand in the noil market has allowed prices to slip off during the month, but wool combers have had to pay firm prices for their wools, and not making much profit on their tops cannot afford to allow the noil output to pass out of their hands at lower prices. Dealers are hoping that something good will break in October and yet beyond a specialized demand for choice fine noils there is little transpiring in the market.

Worsted Yarns Holding Gains

Outerwear Sales Expand Following Holiday Drop

THERE is seasonal improvement in demand for outerwear counts and to a certain extent in yarns going into women's woven wear. Men's wear interest, however, in sales yarns is small. Prices are holding but there is nothing to indicate that advances are coming in the near future. Most active counts used by knitters are holding steady at levels current for some time, but no sales are reported at higher figures.

Outerwear yarns are active, but not quite up to the mark set in September. Whether trading will come back to that high level remains for next week to disclose, there being signs this week that this may develop. Sales were curtailed by the holiday during previous two weeks and effects were quickly seen in deliveries from spinners. This week trading quickened and predictions were heard that interrupted active business would quickly resume.

September Sales A Target

The fact is, September selling has not yet been equaled this month. Demand is expected to expand and may reach that level as inquiry is larger than mere seasonal improvement in certain counts, 2-40s, 64s, for example; while other numbers are only better because it is the time of year for sales to come. Spinners believe activity will continue at or near present proportions until the last of next month when seasonal demand will have been satisfied.

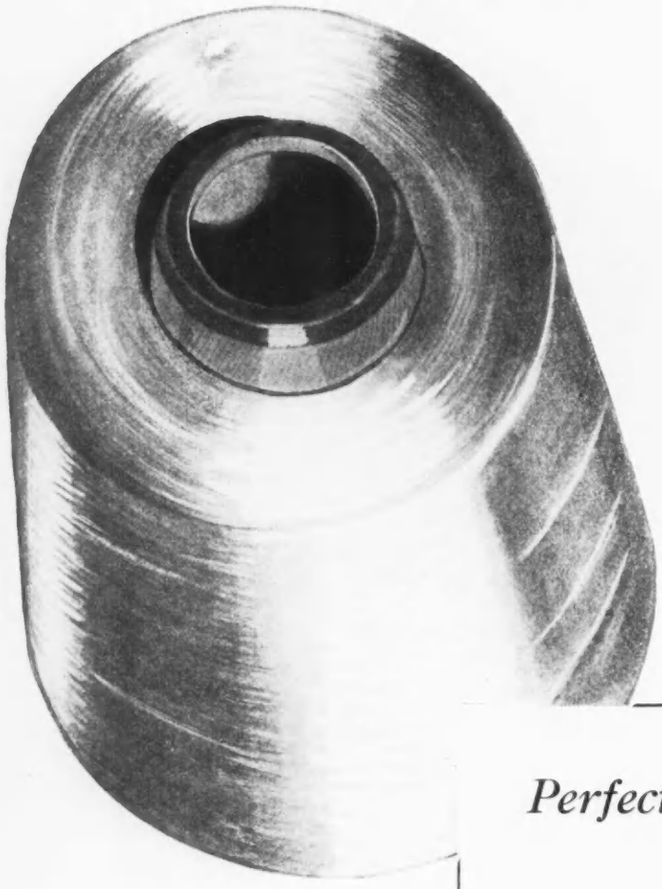
Single English spun yarns that are going into women's two-piece suits and sweaters have the call and have been the largest sellers, 1-15s, 50s being one of the most active counts. Sales of this number and grade have been made at $1.17½ to $1.20, most representative spinners holding at the higher figure. Two-ply English spun counts have been moving better, but the volume has not been large, spinners continuing to hold at the same level, $1.05 for 2-2s, 50s.

Quick Shipments Wanted

Most contracts have been small in size and bulk of quantity ordered is for nearby delivery. Stocks are small in manufacturers' hands and most popular counts have been well cleaned out of spinners' warehouses which makes manufacturers more willing to pay quoted prices when they can get wanted deliveries. For good 2-20s, 50s, knitting there is no question about the price, mills being willing to pay $1.05. If they will accept 48s then this price is lowered.

In French spun knitting 2-40s, 64s have been sold at $1.60 which is unchanged. Yarn is available at this price although a number of sellers that have enough business in this count are

The Epochal Success!



GLANZSTOFF "LION BRAND" JUMBO CONES

Perfectly Packed!

GLANZSTOFF JUMBO CONES cost no more and produce more . . . more efficient than any cones you have ever used.

Perfectly Wound!

GLANZSTOFF JUMBO CONES insure continuous running; utmost cleanliness; high tensile strength; minimum of "Seconds."

Glanzstoff Rayon Yarns!

will improve the finish of your cloth, giving the desirable subdued lustre demanded by fashion.

100 and 150 Denier for Circular and Warp Knitting

Ask for Samples and Technical Advice

▼

LION RAYON GLANZSTOFF YARNS BRAND

Glanzstoff Promotional Service

Will create an ever-increasing demand for Lion Brand Yarns—we therefore suggest that you contract for an adequate supply to insure uninterrupted operations.

●

AMERICAN GLANZSTOFF CORPORATION

180 Madison Avenue **New York, N. Y.**

American Plants

Elizabethton, Tennessee

holding for 2½ to 5c. higher, the higher quotation being $1.65.

Men's wear manufacturers have not been in the market this week. A number have already placed contracts on which deliveries are being made but the number in this class is small and majority of fancy men's wear mills in the Philadelphia district have yet to place sizeable orders ahead. These mills are showing new lines on the road and expect to book business that will permit them to start on volume production within the next few weeks.

MEN'S WEAR SEASON SLOW

When this occurs they will need yarn in short order and on this phase spinners are counting. The season so far as manufacturers are concerned has not got underway as yet, and fair test of yarn buying has not been possible. Many feel that a rush of orders will be seen later this month which will quicken trading in mixture counts to an extent which will compare with outerwear during recent weeks.

◆Wool Goods Need Stimulus

WOOL goods are moving in slightly larger volume due to seasonal influences. This is confined largely to dress goods lines, men's wear for the light-weight season not feeling any benefit from this. In fact the warm weather of recent weeks is being blamed for the slowness of the new men's season. Orders to date have been confined to sample quantities.

Relatively, the dress goods section of the market is ahead of the men's wear, manufacturers in this group being fortunate in that women are buying more woolen and worsted material this season because of economic conditions. A few years ago women favored fur coats. This year most are inclined to save money and are turning toward woolens and worsteds. Recent statistics showed that worsted dresses are selling in the highest ratio with silk for 20 years.

Men's wear season is slow getting underway, sample orders for new lines being the rule. Mills in many instances have not lowered their prices in line with new wool and yarn levels but instead have brought their quality up. They are offering a fabric that will sell for about the same prices as last year but will give better service and appearance. In view of this many popular price chain stores will continue to sell for same prices as last season and place better goods in their $22.50 clothes. A lesser number will price their lines $2 or $3 lower to take care of the lower raw material price level this season.

Statistically, the market is in good condition, stocks having been reduced considerably, according to recent figures published by the Wool Institute, and reports indicate that this trend has continued. The market has still to overcome seasonal influences such as warm temperatures and absence of the will to buy among large numbers of consumers.

Raw Silk Has Brief Rally

Upturn Proves Short-Lived; Prices 5-10c. Below Last Week

RAW silk has weakened once more, after a brief rally, and prices are 5 to 10c. below last week. Manufacturers are even more hesitant than they were, comparatively speaking; turnover on the Exchange increased, but not in proportion to increased requirements of the consuming industries. Both weavers and knitters need substantial quantities of raw material and would buy with some confidence, if prices were reasonably steady.

The day-by-day fluctuations and the general uncertainty as to when raw silk will "hit bottom" is resulting in a day-by-day purchasing policy on the part of manufacturers. Current buying in the uptown New York market is rigidly limited to immediate needs. When silk showed a firming trend late last week, hosiery mills started to buy ahead, but this tendency was checked by the new weakness which developed Monday.

SHORT OF 13/15s

Restrictions on imports have resulted in a shortage of low grade 13/15s, but the scarcity is regarded as temporary. It is not taken seriously enough to strengthen market tone. The yellow 20/22s also are limited, and some importers are asking two to three weeks for deliveries.

The market lacks confidence. Importers have had their hopes for stability blasted so frequently, that now they refuse to make predictions. The thought that raw silk "must hit bottom soon" is frequently voiced, but repetition has weakened this viewpoint; the same thought was expressed months ago when silk hit $3. At present, considerable $2 silk is available, if the manufacturer is not too particular about quality. It is estimated that raw silk sales for the fall season are about 75% of normal.

The prevailing cry is for stability, and any sign of steadying would bring spirited buying, it is believed. With holiday production well under way, raw silk sales should improve proportionately, which is to say they should be fair, but less than normal for the holiday period. All progress and sales are on a below-normal scale, and nothing more than a seasonal pick-up may be looked for. Importers admit silk may go further down, as current reports from Japan offer little encouragement. The Japanese banks are very low on cash; one importer was informed that these institutions have only 5 to 6% cash reserve against deposits in hand, which would explain the refusal of the banks to give further credit to filatures.

◆Brown and Gold Cantons Scarce

DEMAND for broadsilks continues to accent canton crepes, and mills are short of the high-lighted fall colors, such as brown and gold tones. The bulk of the lines are plentiful and there is no difficulty about getting quick delivery. Cutters are waiting for the new spring openings and tend to hold back on orders, until the 1931 fabrics are shown. Some mills solved this problem by including a few spring numbers in their winter resort lines, which has helped to stimulate buying. The bulk of the spring lines, however, will not be shown until about Nov. 1. Transparent velvets are moving spiritedly and some of the large mills are sold up; one firm was reported to be asking four weeks leeway on shipments. These piles are in the popular-price class, $2.25 being the best seller. A good volume is being built up, especially in black, brown and green; black velvet outsells all others by two to one. Prices are moderately steady, but not as steady as they should be, considering the active demand.

Production of cantons continues the big feature at the mill end; heavy sheers, especially georgettes, have improved, and mills are increasing their output of these lines. Metals also are in better call. Broadsilk weavers are more confident regarding the outlook; sales have picked up generally. The big source of complaint is that prices have failed to firm up in proportion to sales. There is still much underselling.

◆Thrown Silk Active; Spinners Quiet

SILK yarn demand is favoring the throwsters at present. Both broadsilk and hosiery mills are buying, and in some cases thrown yarn mills are sold six to eight weeks ahead; this pressure is particularly noticeable in grenadines, all of which are in good call. Weavers are less confident, and hold down orders; however, inquires from these outlets are increasing and bigger business is looked for. The vacillations of raw silk have made the broadsilk mills hesitant, despite the fact that they are actually in need of yarn. Prices weakened toward

ACELE BULLETIN NO. 17

OCTOBER 11TH

Another 30,000-yard order for Panne Satin specifies

PANNE SATIN weaving is one of the most trying jobs a yarn has to do. It requires an acetate rayon with sufficient strength and elasticity to stand the pounding of high shaft looms. Yarns must be sized meticulously. Shiners, tight ends, warp streaks, spell ruin to the pearl surface of this high-fashion fabric.

ACELE has passed both these tests in the face of rigid comparison. It has been shown that the increased tensile strength of **ACELE** produces not alone great beauty, but an actual increase in loomage and a saving of running time. The benefits of sized spools are too obvious to list!

These virtues... which rightly are counted necessities to a flawless panne satin... have proved points of economy in a score of less exacting weaves. For examples, write:

ACELE Department, Du Pont Rayon Co.
2 Park Avenue · New York City · LEXington 0022
Our Downtown Office, 40 Worth Street

THESE REGULAR BULLETINS ARE THE HISTORY OF OUR PROGRESS

the end of last week, but now they show a firming trend.

Spun silk is quiet but steady, with weavers holding off on orders pending trade response to the new lines. Outerwear mills place considerable business for fancy sweaters; all orders are small and for quick delivery. Prices are unchanged. Stocks are moderate, with little underselling.

Rayon Selling Ahead

Knitters Covering Actively; Some Buy Into December

IMPROVED demand for finished knit goods is having a healthy effect on the rayon yarn market. Hosiery and underwear mills are placing considerable business, the call being mainly for 150 and 125 denier, with a minor interest in 100s. With the exception of special yarns, rayon producers have no difficulty in deliveries; there is shortage of the special sizes, but rayon as a whole is all too plentiful. Production continues to hover around 90%, with numerous plants at capacity, and demand is not large enough to make any dent in the 20,000,000 lb. surplus on hand.

Broadsilk weavers show little interest, due to the low prices of raw silk; rayon firms have difficulty in getting orders from these mills. Cotton weavers, on the other hand, are buying actively, most orders being for sub-standard yarn; the demand from the cotton group seems to be greater than the stocks of inferior available. Rayon producers say they could sell much more of the 80c. grades, if they had the stocks. The producers are less inclined to make sales of inferior conditional upon purchases of standard yarn; this policy, which was in general effect last year, in order to keep a balance between movement of standard and sub-standard yarns, is now unnecessary because little of the inferior is available.

Knit Goods Encouraging

Demand from knit goods mills is so pronounced as to have an encouraging reaction on the rayon market. Knitters buy both spot and future, and some firms have covered for December.

Discussion of price guarantees revived this week when one standard brand producer of acetate process yarns was reported to be selling on a 90-day pledge. Other producers of acetate yarn were divided on the advisability of such a policy. One is firm against price guarantees, but another took the attitude that individual cases might warrant such a guarantee. The latter company, through a spokesman, gave its stand as follows. Price guarantees, as a fixed policy are inadvisable, but the rule should not be rigid. If a fabric manufacturer came with an order and frankly said he could not afford to place it, unless sure of no price change for a given time, it might be good business to guarantee the price.

It seems likely that this practice is being quietly followed, and it would appear that the policy is sound. Manufacturers are obliged to hesitate about buying ahead, when an expected price cut would mean selling at a loss, and an elastic policy on guarantees would serve to stimulate yarn turnover.

A new development which some producers see as tending to upset prices, is the reported leaning toward group selling. It is asserted that certain producers line up mills geographically and when the group in one locality consumes more than $1,000,000 worth of yarn, they all get the prescribed 5% reduction. At present, this practice is limited to a few firms, but producers are wondering whether it will grow; it has a real significance, as broadly applied, it would be equivalent to a price cut.

Good Call for Knit Goods

Cold Weather Sharpens Buyer Interest in All Lines

THE knit goods sages who insisted that unseasonably warm weather was largely responsible for the backward buying, are finding themselves confirmed by developments. Last week's drop in temperature had a stimulating effect on demand, and all three divisions of the market now register fair activity, with pressure being noted in such lines as heavyweight underwear and sweaters.

Heavyweight underwear is in strong call, and mills are two to four weeks behind in deliveries. Retailers and jobbers have difficulty in getting quick replacements. The situation is shaping itself exactly as forecast; abnormally low inventories in stores brought a rush of orders as soon as the weather grew cool, and mills did not have stocks sufficient to meet the demand. Even now, buyers are slow at learning their lesson, and are covering only for immediate needs; all orders are small, but are numerous enough to represent strong buying.

Heavyweight mills are at capacity output; prices of course are firm, and indications are that buying will continue active for another six weeks. Producers of winterweights estimate that the season's total business may aggregate 75% or more of that done last season. A continuation of the present strong demand might bring turnover up to 1929, but this is doubtful. Mill men will be satisfied if it even approaches that figure. Current heavyweight buying is equally divided between one and two-piece suits.

Rayon underwear call has eased off, but the larger mills continue to get good quantities of small orders from the big cities of the west. Interest in spring cotton lightweights continues light; however, the improved position of heavyweights has encouraged mill men to look for early movement of these lines.

Half-Hose Active

Half-hose continues to sell steadily, with prices firmer in the better qualities. Low-priced lines face keen competition, and buyers are insistent upon special concessions. This tendency is lessening, however; Worth Street agents find a growing confidence among buyers, due to stronger demand at the retail end. Rayon-and-cotton mixtures and all-cottons are moving, and there is also a fair demand for the silk-and-rayon hose retailing at 50c. Even recognizing the danger of predictions in so uncertain a season, it seems likely that half-hose demand in November will find mills unable to fill orders; this is more probable in the medium-price range than in low-priced goods, due to smaller stocks. Hand-to-mouth buying is too conservative a term to apply to the current policy of hosiery factors; they are buying almost day by day. They have no hesitancy about placing a small order today and duplicating it four days hence. Their stocks are at the minimum, according to information reaching mill men.

Children's hosiery is selling steadily and prices are firm; boys' golf hose also is in good demand. Machinery firms state that their clients report general improvement in half-hose and while the mills are disinclined to add new equipment at present, they are considerably more confident. Women's hosiery is unsatisfactory; full-fashioned moves well, but at bargain prices; mills find difficulty in getting anything approaching list figures. Seamless hosiery is in a somewhat parallel position, with plenty of business available, but only if mills slash their prices.

Staple Sweaters Improve

Cool weather has had a good effect on the call for winterweight sweaters, and mills are doing a spirited business. All orders are small, but they are numerous enough to keep producers active; spot shipment is the rule; mills

No seam to twist or mar the sheer.

SHAPED in the knitting for snug trim ankle . . . graceful curve of leg . . . without a seam to mar the exquisite sheer or press the fitted foot or narrowed Gussetoe. These new stockings from the Model K are the smart correct thing for formal evening wear.

Established 1865

SCOTT & WILLIAMS

Incorporated

300 Broadway
New York, N.Y.

The "Gussetoe" . . . the smooth, fitted foot, with no seam or ridge.

have no difficulty as yet in making quick deliveries as the slow start permitted the accumulation of surplus. However, continued movement of stock at current speed would eliminate the surplus in a few weeks, it is estimated. Advance buying of 1931 bathing-suits is light but steady. Producers are still getting out samples and bathing-suit production for stock probably will not start until early December. All outerwear prices are steady and the outlook is good.

No Improvement in Securities

Textile Shares Fall in With General Downward Movement

THE current week has been no better than others recently past from the standpoint of textile mill security values. In fact the declining trend continues and listed as well as unlisted shares show further losses.

On the New York Stock Exchange textiles were not particularly active and the declines registered in those which were most active were not large. Probably the future has been fairly well discounted and the basis for the recession is most likely the general downward movement of all stocks. Some of the more inactive stocks registered wider changes, both increases and decreases, but the extent of these changes is due principally to the long period which has elapsed since the last previous sale rather than to any new developments.

Light Sales at Auctions

Only five textile companies appeared at Wednesday's Boston stock auctions and changes from previous values were slight. A total of only 111 shares was sold at these auctions.

The table given below shows the balance sheets of six representative companies, the current year being compared with the one 12 months previous. On this particular list few pronounced changes are shown but there is evidence in these reports that mills are making an effort to hold down their inventories.

Net profit for the 12 months ended Aug. 31 of $699,156 is reported by the Jantzen Knitting Mills, Portland, Ore., this comparing with $649,828 for last year. This is equal, after preferred dividends, to $6.57 per share on the 100,000 common shares now outstanding. Last year's earnings were equal to $6.10 a share.

Jantzen Reports Profits

Directors of Jantzen Knitting Mills have declared a stock dividend of 100% and have voted to increase the cash dividend rate on the present stock from $2 to $3 a year, beginning with the quarterly payment to be made on Nov. 1, 1930.

A special stockholders' meeting has been called for Nov. 12 to approve action of the directors in declaring the 100% common stock dividend. It is rumored in Portland that application will be made to list the stock on the New York Stock Exchange. It is understood that authorization of additional common shares above those necessary for the stock dividend may be asked by the directors.

Dominion Woolens Deficit

Dominion Woolens & Worsteds, Ltd., with head office at Hespler, Ontario, in its annual statement for the year ended June 30, 1930, showed a deficit of $294,890, as against a net profit of $126,993 for the year 1928. This adverse showing was due to excess import competition and to the drastic decrease in values of wool and wool manufactures during 1929. Total earnings for the year 1929 amounted to $65,816 as compared with $601,437 for the previous year. Assets stand at $6,912,693 as against $7,711,438 in 1929.

Southern Stocks Steadier

CHARLOTTE, N. C.—A decline of only 8c. per share was recorded last week in the average bid price of 25 southern cotton mill common stocks according to figures released by R. S. Dickson & Co. The closing price stood at 64.32 for the week as compared with 64.40 for the previous week. Trading was light with only a limited number of inquiries for either the preferred or common stocks at prevailing market quotations for these securities.

Boston Stock Auctions

The following sales of textile shares were made at Wednesday's auctions:

Shrs.	Mill	Par	Price	Change
49	Associated Textile	...	35–36¼	....
11	Pepperell	100	87–86¼	—1¼
38	Arlington	100	22¼	—1½
2	Plymouth Cordage	100	70½	—2½
11	B. B. & R. Knight, Class A	100	$6 lot	....
111	Total			

Boston Wool Receipts

Receipts of domestic and foreign wools at Boston, also imports at Philadelphia and New York for the week ended Oct. 6, based upon data compiled by the Market News Service of the Bureau of Agricultural Economics, Department of Agriculture, are as follows:

	Week Ended Oct. 6	Total to Date 1930	Total to Date 1929
Domestic	1,927,000	324,912,000	189,149,000
Foreign	114,000	53,699,000	83,120,000
Total	2,041,000	378,611,000	272,269,000
IMPORTS AT PRINCIPAL PORTS			
Boston	114,000	53,699,000	83,120,000
Philadelphia	333,000	36,379,000	68,475,000
New York	884,000	34,838,000	59,884,000
Total	1,331,000	124,916,000	211,479,000

MILL STATEMENTS

Name and Address of Company	Line of Business	Fiscal Year	Assets						Total	Liabilities and Capital		
			Cash and Debts Receivable	Raw Materials, Mdse., Etc.	Total Quick Assets	Real Estate, Buildings and Machinery	Miscellaneous Amount	Miscellaneous Description		Accounts Payable, Floating and Funded Debt	Capital Stock	Surplus, Profit and Loss, Reserves, Etc.
Keene Silk Fibre Mills, Keene, N.H.	Silk	Dec. 31, 1929	$68,092	$94,008	$162,100	$360,415	$2,293	Deferred charges	$524,808	$172,582	$150,000	$202,226
		Dec. 31, 1928	85,024	128,094	213,118	352,498	1,811	Deferred charges	567,427	210,164	150,000	207,263
Fitchburg Weaving Co. Fitchburg, Mass.	Cotton and Rayon	June 30, 1930	54,229	52,795	107,024	49,161	809	Deferred charges	156,994	57,957	100,000	*963
		June 30, 1929	62,015	54,431	116,446	41,350	.....	.....	157,796	56,958	100,000	838
Aetna Mills Watertown, Mass.	Wool	June 30, 1930	499,514	300,029	799,543	497,281	13,746	Miscellaneous	1,310,570	499,822	810,748	.....
		June 30, 1929	558,992	339,094	898,086	518,531	16,979	Miscellaneous	1,433,596	542,319	891,277	.....
Waucantuck Mills Uxbridge, Mass.	Wool	Dec. 31, 1929	398,091	258,028	656,119	266,053	.....	.....	922,172	254,026	235,600	432,546
		Dec. 31, 1928	386,534	253,338	639,872	276,662	15,560	Miscellaneous	932,094	285,039	235,600	411,455
Lawton Spinning Co. Woonsocket, R. I.	Cotton	Dec. 31, 1929	395,057	639,700	1,034,757	1,302,344	100,808	Miscellaneous	2,437,909	7,287	1,800,000	630,622
		Dec. 31, 1928	228,831	795,262	1,024,093	1,356,045	95,372	Miscellaneous	2,475,510	10,527	1,800,000	664,983
Waterhead Mills, Inc., Lowell, Mass.	Finishing	Dec. 31, 1929	218,432	82,574	301,006	401,962	32,876	Miscellaneous	735,844	50,207	500,000	185,637
		Dec. 31, 1928	110,232	96,258	206,490	421,184	28,938	Miscellaneous	656,612	42,801	500,000	113,811

*Deduct.

QUOTATIONS

at close of business, Oct. 8, 1930
Prices cover average qualities unless otherwise stated

Cotton Goods

	Oct. 8	Oct. 1	Oct. 9 1929
PRINT CLOTHS			
27-in., 64x60, 7.60	4¼c.	4¼c.	5¼–5⅜c.
38½-in., 64x60, 5.35	5½c.	5½c.	7½c.
39-in., 68x72, 4.75	6¼c.	6¼c.	8¾c.
39-in., 72x76, 4.25	6¼–6¾c.	6¼–6¾c.	9½–9¾c.
39-in., 80x80, 4.00	7½c.	7½c.	10¼c.
BROWN SHEETINGS			
36-in., 56x60, 4.00	6½c.	6½c.	8½–8¾c.
36-in., 48x48, 3.00	7½c.	7½c.	10⅜c.
37-in., 48x48, 4.00	5⅞–6c.	5⅞–6c.	8¼–8⅜c.
PAJAMA CHECKS			
36½-in., 72x80, 4.70	6¼c.	6½c.	9¼–9½c.
36½-in., 64x60, 5.75	5⅛–5¼c.	5⅛–5¼c.	7½c.
MISCELLANEOUS			
Drills, 37-in., 3 yd.	7¾c.	7¾c.	10¾–11c.
Denims, 2.20	12½c.	12½c.	16.33c.
Tickings, 8 oz.	16 c.	16 c.	20–21c.
Standard prints	7¼c.	7¼c.	9½c.
Eastern staple ginghams, 27-in.	8 c.	8 c.	10 c

Cotton Waste

Peeler comber	8½ — 9½
Peeler strips	7½ — 7¾
Sak. comber	8 — 8½
Choice willowed fly	4½ — 5½
Choice willowed picker	3 — 4½
Sak. strips	10½ — 11
Linters (mill run)	2½ — 3½
White spooler (single)	8 — 8½

Cotton Yarn

CARDED (Average Quality)
Double Carded 2c.–4c. higher according to quality

SINGLE SKEINS OR TUBES (Warp Twist)

4s to 8s	$0.20 – .20½	22s	$0.23
10s	.20½ –	24s	.24½ – .25
12s	.20½ – .21	26s	.25½ – .26
14s	.21 – .21½	30s	.27½ – .28
20s	– .22	40s ex.qual.	– .39

TWO-PLY SKEINS AND TUBES

8s-2	$0.20½	26s-2	$0.26
10s-2	.20½ – .21	30s-2	.27 – .27½
12s-2	.21 – .21½	36s-2	.33 – .34
14s-2	– .21½	40s-2	.35 – .36
16s-2	.21½ – .22	40s-2 hi. blk.	.39 – .40
20s-2	– .22	50s-2	.44 – .45
24s-2	– .24½	60s-2	.53 – .54

SINGLE WARP

10s	$0.20½	24s	$0.25
12s	– .21	26s	.26
14s	– .21½	30s	.27½ .28
16s	– .22	40s ex. qual.	.39 – .40
20s	– .22½		

TWO-PLY WARPS

8s-2	$0.21	24s-2	$0.24½ – .25
10s-2	.21 – .21½	26s-2	.25½ – .26
12s-2	– .21½	30s-2	.27 – .27½
14s-2	.21 – .22	40s-2 ordin.	– .36
16s-2	.22	50s-2	– .45
20s-2	.22 – .22½	60s-2	– .54

8s-3 and 4-ply skeins and tubes; tinged, 17; white, 19-19½; waste 16½-17

HOSIERY CONES (Frame Spun)

8s	$0.20	22s	$0.23½ – .24
10s	$0.20 – .20½	24s	.24½ – .25
12s	– .21	26s	.25½ – .26
14s	– .21½	30s tying	– .27
16s	– .22	30s reg.	– .29
18s	– .22½	30s ex. qual.	.30 – .30½
20s	– .23	40s	.36 – .37

COMBED PEELER (Average Quality)

TWO-PLY—(Knitting Twist) Cones

29s-2	$0.35 – .35½	60s-2	$0.55 – .56
30s-2	.40 – .41	70s-2	.65 – .66
36s-2	.41 – .42	80s-2	.77 – .78
40s-2	.43 – .44	90s-2	.92 – .95
50s-2	.48 – .48½	100-s	1.15 –1.18

WARPS, SKEINS AND CONES

TWO-PLY—(Warp Twist)

20s-2	$0.36 – .37	60s-2	$0.56 – .57
30s-2	.41 – .42	70s-2	.66 – .67
36s-2	.42 – .43	80s-2	.77½ – .78
40s-2	.44 – .45	90s-2	.97 –1.00
50s-2	.49 – .50	100s-2	1.20 –1.25

SINGLES

12s	$0.28½	30s	$0.38
14s	– .29	38s	– .41
16s	– .29½	40s	– .42
18s	– .30	50s	– .47
20s	– .31	60s	– .54
24s	– .33½	70s	– .64
28s	– .36½	80s	– .76

MERCERIZED CONES—(Combed, Ungassed)

26s-2	$0.52 – .53	90s-2	$1.31 –1.33
30s-2	.54 – .55	100s-2	1.61 –1.63
36s-2	.57 – .58	120s-2	2.01 –2.04
40s-2	.60 – .61	30s	.65 – .67
45s-2	.62 – .64	40s	.70 – .72
50s-2	.64 – .66	50s	.77 – .79
60s-2	.72 – .74	60s	.85 – .87
70s-2	.84 – .86	70s	.97 – .99
80s-2	.96 –1.01	80s	1.19 –1.21

Cotton Prices and Statistics

COTTON STATISTICAL DATA

(Fluctuations of Futures)

	Closed Oct. 2	For Week High	For Week Low	Closed Oct. 8	Net Chge.
October	10.41	10.42	10.01	10.05	—.36
November	10.57	10.57	10.15	10.15	—.42
December	10.74	10.74	10.18	10.33	—.31
January	10.85	10.86	10.32	10.42	—.43
February	10.88	10.88	10.44	10.52	—.36
March	10.97	11.02	10.45	10.62	—.35
April	11.05	11.05	10.64	10.72	—.33
May	11.18	11.19	10.65	10.82	—.36
June	11.23	11.23	10.82	10.89	—.34
July	11.32	11.33	10.82	10.97	—.35
August	11.25	11.25	10.90	10.90	—.35

SPOT FLUCTUATIONS FOR WEEK

(Middling)

	New York	New Orleans	Liverpool
Friday, Oct. 3	10.50	10.31	5.76
Saturday, Oct. 4	10.35	10.15	5.69
Monday, Oct. 6	10.25	10.10	5.62
Tuesday, Oct. 7	10.15	10.00	5.61
Wednesday, Oct. 8	10.20	10.05	5.56
Thursday, Oct. 9	10.20	10.02	5.63

SPOT FLUCTUATIONS AND STOCKS

Markets	Oct. 1	Oct. 8	Sales	Stocks This Week	Stocks Last Year
Galveston	10.40	10.05	5,163	379,099	304,681
New Orleans	10.31	10.05	57,172	466,153	238,794
Mobile	9.75	9.45	9,714	81,583	41,236
Savannah	10.02	9.72	9,033	235,395	77,924
Norfolk	10.25	9.94	3,711	63,718	14,490
New York	10.50	10.20	600	229,064	98,076
Augusta	9.88	9.56	3,800	111,351	63,143
Memphis	9.35	9.05	38,379	228,976	194,402
St. Louis	9.50	9.15	.....	1,811	3,391
Houston	10.35	10.05	70,117	1,138,027	574,355
Dallas	9.80	9.45	85,235	18,221	4,059

BASIS MIDDLING

	Saturday, Oct. 4	Saturday, Sept. 27
10 markets average	9.70	9.70
Memphis	9.15	9.15

PREMIUM STAPLES

First Sales from Factors Tables at Memphis

Grade Strict Middling	Prices Nominal
1⅛-in	11.40—11.65c.
1 3/16-in	13.00—13.40c
1¼-in	18.00—18.40c.

CURRENT SALES

	For Week	Prev. Week	Week Before
Memphis total	32,647	32,459	11,640
F.o.b. included in total	30,049	30,216	11,281
10 markets	330,804	345,242	241,609

MEMPHIS RECEIPTS, SHIPMENTS, ETC.

	For Week	Last Year	Year Before
Net receipts	47,160	65,291	41,906
Gross receipts	63,174	110,301	65,145
Total since Aug. 1, net	102,599	157,937	90,527
Shipments	25,315	60,433	34,965
Total since Aug. 1	114,461	170,232	131,038
Total stock	200,772	161,367	116,873
Increase for week	37,859	54,868	30,180
Unsold stock in hands of Memphis factors	42,837	31,305	.....
Increase for week	4,796	8,627	.....

AVERAGE PRICE OCT.–NOV. SHIPMENT
HARD WESTERN COTTON
F. o. b. New England

	Middling	St. Middling
1 5/16 in	12½–12¾c.	12¾–13c.
1⅜ in	13½–13¾c.	14 –14½c.
1 7/16 in	15½ 16c.	16½–17c.
1½ in	19 –21c.	20 –22c.

Basis on New York, New December 10.32c.

DIFFERENCES ON AND OFF MIDDLING
WHITE GRADES

	Dallas	Memphis	Montgomery	Augusta	Average
M.F	.75†	1.00†	.85†	.75†	0.88†
S.G.M	.60†	.75†	.75†	.63†	.70†
G.M	.50†	.50†	.60†	.50†	.51†
S.M	.35†	.25†	.35†	.25†	.30†
S.L.M	.75*	.75*	.65*	.50*	.68*
L.M	1.50*	1.75*	1.50*	2.25*	1.70*
S.G.O.**	2.50*	2.75*	2.50*	3.50*	2.83*
G.O	3.50*	4.00*	3.50*	4.50*	3.85*

YELLOW TINGED

G.M	0.50*	0.75*	0.50*	0.50*	0.58*
S.M	1.00*	1.25*	1.00*	1.00*	1.05*
M.**	1.75*	2.00*	1.50*	1.50*	1.68*
S.L.M	2.50*	2.75*	2.25*	2.25*	2.37*
L.M.**	3.50*	4.00*	3.00*	3.00*	3.30*

YELLOW STAINED

G.M	1.50*	1.75*	1.50*	1.50*	1.58*
S.M.**	2.25*	2.50*	2.50*	2.50*	2.40*
M.**	3.00*	3.25*	3.50*	3.50*	3.23*

BLUE STAINED

G.M.**	1.75*	2.00*	1.75*	1.75*	1.75*
S.M.**	2.25*	2.75*	2.75*	2.75*	2.48*
M.**	3.00*	3.25*	3.75*	3.75*	3.25*

**Grades not deliverable on contract. †On Middling
*Off Middling.

EGYPTIAN COTTON

Alexandria Exchange, Oct. 8		Change
November Sak	17.30	—0.84
October uppers	10.48	—1.20

OCT.-NOV. SHIPMENT c. i. f. BOSTON

(Tariff not included)	(Prices Nominal)
Fully good fair Sak	21.00
Fully good fair to good Uppers	14.00

(By Anderson, Clayton & Co.)

Wool

OHIO, PENNSYLVANIA AND WEST VIRGINIA (IN GREASE)

Fine delne	$0.31 –$0.31½	¾ blood	$0.29 –$0.30
Fine clthg	.23 – .24	¼ blood	.30 – .31
½ blood	.30 – .31		

TEXAS AND CALIFORNIA (CLEAN BASIS)

Texas, 12 months	$0.73 –$0.75
California, Northern	.65 – .68

PULLED—EASTERN (CLEAN BASIS)

AA	$0.75 –$0.78	B-Super	$0.50 –$0.60
A-Super	.65 – .68	C-Super	.48 – .52

MONTANA, IDAHO AND WYOMING (CLEAN BASIS)

Staple fine	$0.75 –$0.78
Staple ½ bld	.72 – .75
Fine and fine medium	.70 – .72
¾ blood	.60 – .63
¼ blood	.56 – .58

MOHAIR—DOMESTIC

Best Carding	$0.35 –$0.38
Best combing	.50 – .52

MOHAIR FOREIGN (IN BOND)

Turkey fair, average	$0.25 –$0.28
Cape firsts	.25 – .28

FOREIGN CLOTHING AND COMBING (CLEAN BASIS IN BOND)

Australia:	
70s	$0.65 –$0.68
64s	.51 – .53
58s-60s	.43 – .45

(IN GREASE)

Montevideo:	
58s-60s	$0.24 –$0.25
56s	.24 – .25
50s	.22 – .23
Buenos Aires:	
4s, 40-44s	$0.21 –$0.22
5s, 36-40s	.19 – .20

FOREIGN CARPET (GREASE BASIS IN BOND) SCOURED

Aleppo	$0.28 –$0.29
China: Combing No. 1	.16 – .17
China Filling Fleece	.15 – .16
Szechuen ass't	.15
Cordova	.15 – .16
Scotch black face	.19 – .23
East India: Kandahar	.23 – .24
Vican'r	.27 – .28
Joria	.27 – .29

Worsted Yarns

ENGLISH SYSTEM WEAVING

2-20s 36s	$0.87½– .90
2-24s 40s	.97½–1.00
2-26s 44s	1.07½–1.10
2-28s 46s	1.10 –1.12½
2-30s 48s	1.15 –1.17½
2-32s 50s	1.20 –1.25

(Single yarns 5c. less than above)

2-36s, 58s	$1.32½–1.35
2-40s, 60s	1.40 –1.45
2-40s, 64s	1.45 –1.50
2-50s, 66s	1.65 –1.70
2-60s, 70s	2.00 –2.05

ENGLISH SYSTEM KNITTING

2-20s, 44s in oil	$0.95
2-20s, 48s in oil	1.00 –1.02½
2-20s, 50s in oil	1.05
2-20s, 56s in oil	1.15
2-20s, 60s in oil	1.30 –1.35
2-20s, 64s in oil	1.35 –1.40
1-15s, 46s dyed	1.15
1-15s, 48s dyed	1.17½
1-15s, 50s dyed	1.20

(Oil yarns 17½c. less)

FRENCH SYSTEM

1-20s, 58s	$1.17½–$1.20
1-20s, 60s	1.25 – 1.27½
1-18s, 64s, Dyed	1.50 – 1.52½
1-26s, 64s	1.27½– 1.30
1-30s, 60s, Warp	1.37½– 1.40
1-30s, 64s, Warp	1.42½– 1.45
2-30s, 64s, Fancy mixes	1.70 – 1.72½
2-40s, 64s, Zephyrs	1.60 – 1.65
1-50s, 66s	1.62½– 1.65
2-50s, 66s	1.80 – 1.82½
1-60s, 70s	1.95 – 2.00
2-60s, 70s	2.10 – 2.15

FRENCH SPUN MERINO WHITE

1-30s, 50-50-58s on cops	$1.05 –$1.07½
1-40s, 50-50-60s on cops	1.20 – 1.25
1-40s, 50-50-64s on cops	1.22½– 1.25
1-40s, 50-50-64s Australian cops	1.25 – 1.30

Underwear mixes, 3c. additional.
Solid color, 35c. additional.

Tops and Noils

TOPS—BOSTON

Fine (64-66s)	$0.98–$1.00
Half-blood (60-62s)	.88– .92
High ¾ blood (58s)	.83– .85
Aver. ¾ blood (56s)	.80– .83
Low ¾ blood	.73– .78
High ¼ blood (50s)	.70– .72
46s S. A. and N. Z	.65– .66
44s S. A. and N. Z	.62– .65
40s S. A. and N. Z	.58– .60

TOPS—BRADFORD, ENG. (OCT. 2)

Fine (70s)	29 d	¾ bld. (56s)	18 d
Fine (64s)	26 d	¼ bld. (50s)	15½d
½ bld. (60s)	24 d	Cross-bred (46s)	13½d
⅜ bld. low (58s)	20 d		

NOILS—BOSTON

Fine	$0.55–$0.58	High ¼ bld.	$0.42–$0.45
Half-bld	.50– .53	Low noils	.35– .40
Aver. ¾ bld.	.45– .48	Medium colored	.35– .40
Fine colored	.44– .47		

Wool Substitutes

WOOL WASTE

Lap, fine white	$0.73 –$0.75
Lap, fine colored	.56 – .58
Hard ends, fine white	.60 – .62
Hard ends, ¼ blood white	.40 – .43
Hard ends, fine colored	.25 – .28
Hard ends, medium colored	.20 – .22
Card, fine white	.30 – .32
Burr, fine Carbonizing	.38 – .40

OLD WOOLEN RAGS (GRADED FOR MFRS.)

Merinos, Coarse Light	$0.06 –$0.07
Merinos, Fine Dark	.04½– .05
Merinos, Fine Light	.14 – .14½
Serges, Blue	.07½– .08
Serges, Black	.07 – .08
Serges, Red	.11 – .11½
Knit, White	.29 – .30
Knit, red	.15 – .16
Knit, Light Hoods	.14 – .15
Worsted, Light	.05½– .06
Worsted, Blue	.07½– .08
Worsted, Black	.07½– .08

Silk Yarns

THROWN SILK (60 day basis)

	Nominal
Japan organzine, 2 thd. grand XX in skeins	$4.00
Japan organzine, 2 thd. sp. crack in skeins	3.80
Japan crepe, 3 thd. grand XX in bobbins	4.00
Japan crepe, 3 thd. sp. crack on bobbins	3.70
Japan crepe, 4 thd. crack on bobbins	3.50
Japan grenadine, 4 thd. sp. grand singles	5.40
Canton crepe, 3 and 4 thd. ns. 14/16 on bobbins	2.45
Tussah tram, 2 end on cops	1.70
Hosiery tram, 3 thd. Japan 90%	4.70
Hosiery tram, 5 thd. Japan, 85%	3.70
Hosiery tram, spec. crack XX	3.45
Hosiery tram, crack XX	3.15

SPUN SILK YARNS (Terms: net 30)

40/2	$3.45	60/2	$3.80
50/2	3.65	62/1	2.75

Raw Silk

(60 day basis)
Prices Nominal

	13/15 White	20/22 White	20/22 Yellow
Super Grand, 86/88%	$3.00	$2.40	$2.35
Special Grand, 85%	2.75	2.40	2.35
Grand XX, 83%	2.50	2.30	2.25
Special Crack, 81%	2.48	2.25	2.20
Crack XX, 78%	2.38	2.20	2.15
Extra Extra, 73%	2.26	2.15	2.10
Best Extra, 68%	2.21	2.10	2.05

Canton filature, new style, 14/16	$1.60
Canton filature, new style, 20/22	1.45
Tussah filature, 8 cocoon	1.25

NATIONAL RAW SILK EXCHANGE

	Close Oct. 1	For the Week High	For the Week Low	Close Oct. 7	Net Chge.
October	2.20	2.30	2.12	2.16	—.04
November	2.20	2.27	2.14	2.14	—.06
December	2.20	2.28	2.14	2.15	—.05
January	2.19	2.29	2.14	2.15	—.04
February	2.20	2.27	2.14	2.16	—.04
March	2.19	2.27	2.15	2.16	—.03
April	2.20	2.27	2.15	2.16	—.04
May	2.20	2.27	2.15	2.16	—.04

Oct. 1 to Oct. 7—Total contracts, 10,320. Total number of bales, 1,032. Total approximate value, $22,291.20.

Domestic Rayon

VISCOSE PROCESS

Denier	Filament	First	Second
50	14	$2.15	$1.95
75	18	1.60	1.50
75	30	1.70	1.60
100	18	1.25	1.15
100	40	1.30	1.20
125	36–50	1.20	1.10
150	24–30	.95	.90
150	36–40	1.00	.95
150	60	1.15	1.10
150	75–90	1.20	1.15
170	24–27	.95	.90
170	60	1.15	1.10
200	30	.90	.85
200	35–40	.90	.85
200	75–80	1.10	1.05
300	44–60	.78	.75
450	54–60	.78	.75
600	72–96	.78	.75
900	100–144	.78	.75

NITRO-CELLULOSE PROCESS

Denier	First Qual.	Second Qual.	Denier	First Qual.	Second Qual.
75	$1.60	$1.50	150	$0.95	$0.90
100	1.25	1.15	175	.95	.90
125	1.20	1.10			

CUPRAMMONIUM PROCESS

Denier	Filament	Price	Denier	Filament	Price
15	24	$3.10	65	45	$2.00
25	24	2.85	80	60	1.70
30	24	2.60	100	75	1.40
40	30	2.40	120	90	1.30
52	30	2.20	150	112	1.25
			180	135	1.10

ACETATE PROCESS

Denier	Price	Denier	Price
45	$2.25 2.75	120	$1.90
55	2.05–2.55	140	1.30
65	2.45	150	1.40–1.85
75	1.80–2.70	200	1.55
100	1.65–2.45	300	1.50

Rayon Waste

Prices Nominal

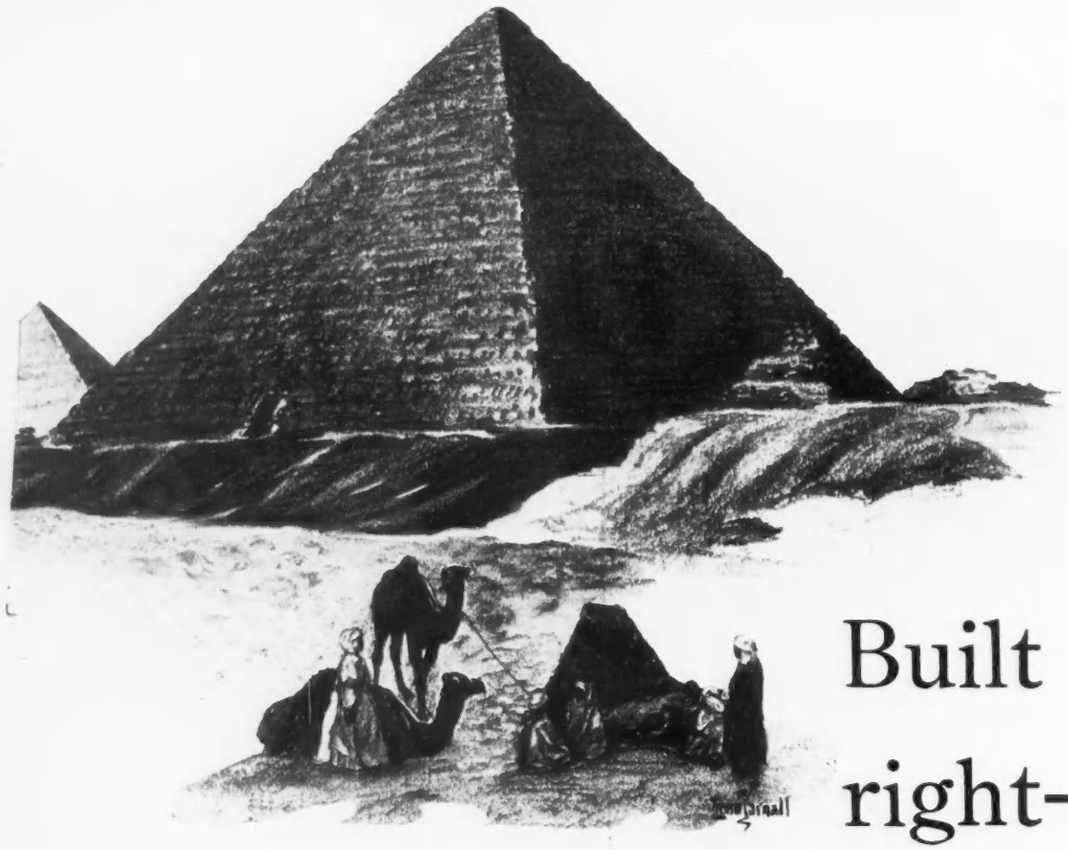
Open bleached waste	–$0.15
Open unbleached waste	–.13
Bleached thread waste (mfs.)	–.11
Bleached thread waste (misc.)	–.09
Colored thread waste	–.08
Colored clips	–.07

CONVERTED RAYON WASTE

Bleached tops	–$0.40
Unbleached tops	–.33
Bleached noils	–.13
Bleached garnetts	–.14
Unbleached garnetts	–.14
Colored garnetts	–.12

Silk Waste

Kibizzo Kakai Grand XX	$0.54
Kibizzo Kakai Triple Extra	.48
Frison Grand Double	.52½
Pierced Cocoons	.53



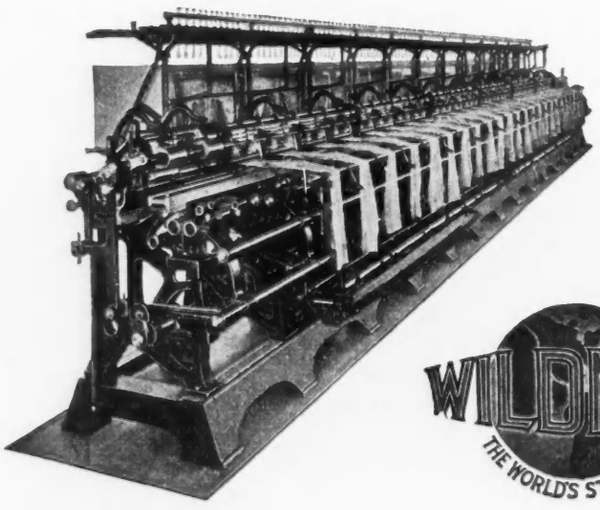
Built right—

from the ground up

The heavy base in the new Wildman Full-Fashioned Hosiery Machine results in the elimination of vibration and its accompanying dangers. It is just one of the many improvements embodied in this new machine, which has been built *right*, from the ground up.

Write for further information.

WILDMAN MFG. CO.
Full-Fashioned Division
Norristown, Pa.



WILDMAN
THE WORLD'S STANDARD

WILDMAN
FULL-FASHIONED HOSIERY MACHINE

Southern Mill Securities

(A. M. Law & Co., Spartanburg)

	Bid	Asked
Abbeville Cotton Mills	..	50
Anderson Cotton Mills	63	69
Arcade Cotton Mills	..	55
Arcadia Mills	..	200
Arcadia Mills, pfd.	90	95
Arkwright Mills	..	50
Augusta Factory, Ga.	..	20
Avondale Mills, Ala.	750	1000
Beaumont Mfg. Co.	200	250
Beaumont Mfg. Co. 7% pfd.	100	102
Belton Mills	..	20
Belton Mills, pfd.	..	65
Bibb Mfg. Co.	96	99
Bibb Mfg. Co. 6% pfd.	99	102
Brandon Corp., A	..	45
Brandon Corp., B	..	6
Brandon Corp., pfd.	..	80
Calhoun Mills	85	95
Chadwick-Hoskins Co. (par, $25)	7	10
Chesnee Mills	..	60
Chiquola Mfg. Co.	..	245
Chiquola Mfg. Co., pfd.	88	92
Clifton Mfg. Co.	96	100
Clinton Cotton Mills	225	250
Columbus Mfg. Co., Ga.	58	65
Cowpens Mills	..	30
D. E. Converse Co.	90	94
Dallas Mfg. Co., Ala.	..	50
Darlington Mfg. Co.	40	50
Drayton Mills	90	..
Dunean Mills	99	108
Dunean Mills, pfd.	95	100
Eagle & Phoenix Mills, Ga.	..	65
Easley Cotton Mills, pfd.	..	45
Enterprise Mfg. Co., Ga.	..	100
Fairforest;Finishing Co., serial notes.	95	100
Florence Mills	45	50
Florence Mills, pfd.	97	100
Gaffney Mfg. Co.	..	21
Gainesville Cotton Mills, Ga.	130	150
Glenwood Mills	85	95
Gluck Mills	65	70
Gossett Mills	..	60
Graniteville Mfg. Co.	..	95
Greenwood Cotton Mills	400	..
Grendel Mills, pfd. (par, $50)	45	48
Hamrick Mills	..	90
Hartsville Cotton Mills	130	140
Hunter Mfg. & Com. Co., pfd.	79	82
Industrial Cotton Mills Co., pfd.	..	30
Inman Mills	110	120
Inman Mills, pfd.	99	102
Judson Mills, A, pfd.	97	99
Judson Mills, B, pfd.	95	98
King, John P. Mfg. Co., Ga.	80	90
Lancaster Cotton Mills	225	..
Laurens Cotton Mills	..	115
Limestone Cotton Mills	..	95
Lydia Cotton Mills, serial notes	95	100
Marion Mfg. Co., N.C.	..	105
Marlboro Mills	..	15
Mills Mill, pfd.	88	92
Mollohon Mfg. Co., pfd.	95	100
Monarch Mills	95	105
Musgrove Cotton Mills	..	25
Newberry Cotton Mills	100	105
Ninety-six Mills	400	..
Norris Cotton Mills	..	40
Orr Cotton Mills	..	55
Orr Cotton Mills, pfd.	..	80
Pacolet Mfg. Co.	..	110
Pacolet Mfg. Co., pfd.	89	92
Panola Cotton Mills, Class A, pfd. (par, $60)	55	60
Pickens Cotton Mills	105	115
Piedmont Mfg. Co.	95	100
Piedmont Print Works (no par)	..	10
Piedmont Print Works, pfd.	..	65
Poe, F. W. Mfg. Co.	16	20
Riverside & Dan River Mills	10	11
Riverside & Dan River Mills, 6% pfd.	68	72
Saxon Mills	..	60
Sibley Mfg. Co., Ga.	50	60
Southern Bleachery	..	20
Southern Bleachery, pfd.	..	80
Southern Bleachery, serial notes.	95	100
Southern Franklin Process	18	22
Southern Franklin Process, pfd.	97	101
Southern Worsted Corp., pfd.	85	90
Spartan Mills	..	130
Spencer Corp., serial notes	95	100
Union-Buffalo Mills	..	40
Union-Biffalo Mills, 1st pfd.	80	83
Union-Buffalo Mills, 2nd pfd.	..	42
Victor-Monaghan Co.	53	56
Victor-Monaghan Co., pfd.	105	110
Wallace Mfg. Co.	..	100
Ware Shoals Mfg. Co.	120	135
Whitney Mfg. Co.	..	25
Woodside Cotton Mills Co.	..	35
Woodside Cotton Mills Co., pfd.	..	40
Yarns Corp. of America, gold bonds.	96	101

Textiles on N. Y. Exchanges

The following shows the movements of the leading textile stocks listed on the New York Stock Exchange and Curb for the week ended Oct. 8:

	High	Low	Last Sale	Net Change
Adams Millis	25⅛	25¼	25¼	+ 1¼
American Woolen	9⅛	8⅞	9⅛	— 1⅛
American Woolen, pfd.	23⅛	21⅛	21⅛	— 1⅞
*Assoc. Rayon, pfd	49⅛	47⅞	49⅛	+ 4⅛
Belding-Hemingway	3⅛	3⅛	3⅛	— ⅛
*Blumenthal	20	19	19	— 1
Botany Mills, A	2⅛	2⅛	2⅛	..
Cannon Mills	20	19⅛	20	..
Century Ribbon	4	4	4	..
Collins & Aikman	16⅛	14⅜	14⅜	— 2⅛
Consolidated Textile	⅜	⅛	⅛	— ⅛
*Courtanlds, Ltd	10	10	10	— 1⅛
Durham Hosiery, pfd.	60	60	60	+12⅛
*Fabrics Finishing	2⅜	⅞	⅞	— 1⅛
Gotham Hosiery	10⅛	9⅛	9⅜	— ⅝
Industrial Rayon	78	69	69	— 9
Kayser, Julius	20⅛	19⅛	19⅛	— 1⅛
Kendall, pfd	55	50	55	—11
Mallison	6⅜	4⅛	4⅜	+ ⅛
Mohawk Carpet	17	16	16⅛	— ⅛
Munsingwear	35	35	35	..
Pacific Mills	20⅞	20⅛	20⅛	— ⅛
*Pepperell	87	85½	85½	— 4⅛
Phoenix Hosiery	10	10	10	..
*Powdrell & Alexander	..	..	..	..
*Propper-McCallum	7	6⅞	6⅞	— ⅛
Real Silk Hosiery	45⅞	40⅛	41⅛	— 1⅞
*Tubize Chat. B	5⅛	4	4	— 1⅛
United Piece Dye Works	26	24	24⅞	— ⅛
Van Raalte	7	7	7	— 7⅛

*Listed on Curb.

N. Carolina Mill Stocks

(R. S. Dickson & Co., Charlotte, N. C.)

	Bid	Asked
Acme Spinning Co.	60	75
American Yarn & Processing Co.	..	71
Chadwick-Hoskins Co. (Par $25)	7	10
Chadwick-Hoskins Co., 8%, pfd.	90	96
China Grove Cotton Mills	82	95
Climax Spinning Co.	52	65
Clover Mills	..	25
Converse, D. E. Co.	80	91
Crescent Spinning Co.	50	61
Dixon Mills	90	100
Durham Hosiery, 6%, pfd.	..	35
Eagle Yarn Mills	52	65
Efird Mfg. Co.	60	80
Erwin Cotton Mills	..	114
Erwin Cotton Mills Co., 6%, pfd.	80	95
Flint Mfg. Co.	..	85
Flint Mfg. Co., 7%, pfd.	90	98
Globe Yarn Mills (N. C.)	..	17
Gray Mfg. Co.	..	75
Hanes, P. H. Knitting Co.	7	10
Hanes, P. H. Knitting Co., 7%, pfd.	..	98
Henrietta Mills, 7%, pfd.	40	55
Imperial Yarn Mills	..	60
Linford Mills	60	71
Locke Cotton Mills Co.	40	55
Majestic Mfg. Co.	99	120
Mansfield Mills	..	65
Mooresville Cotton Mills	..	6
Mooresville Cotton Mills, 7%, prior	..	80
Myers Mills	..	61
Myrtle Mills	..	51
National Yarn Mill	49	60
Perfection Spinning Co.	50	66
Ranlo Mfg. Co.	..	114
Ranlo Mfg. Co., 7%, pfd.	..	97
Roanoke Mills	50	..
Roanoke Mills, 1st pfd., 7½%	77	85
Roanoke Mills, 2nd pfd., 8%	76	90
Rosemary Mfg. Co., pfd., 7½%	94	..
Rowan Cotton Mills Co.	61	74
Seminole Cotton Mills Co.	..	75
Sterling Spinning Co.	56	66
Stowe Spinning Co.	55	66
Victory Yarn Mills Co.	30	50
Ware Shoals Mfg. Co.	105	125
Ware Shoals Mfg. Co., 7%, pfd.	90	98
Winget Yarn Mills Co.	33	50
Wiscassett Mills Co.	155	180

Fall River Mill Stocks

(G. M. Haffards & Co., Fall River)

	Bid	Asked
Algonquin Printing Co.	300	320
Barnard Mfg. Co.	..	10
Berkshire (com.)	12	..
Berkshire (pfd.)	69	71
Bourne Mills	9	12
Border City Mfg. Co.	3	5
Charlton Mills	..	50
Cornell Mills	..	10
Davol Mills	..	5
Davis Mills	..	..
Flint Mills	22	..
King Philip Mills	..	10
Luther Mfg. Co.	80	..
Merchants Mfg. Co.	22	..
Narragansett Mills	..	5
Pepperell Mfg.	88	..
Pilgrim Mills	28	40
Richard Borden Mfg. Co.	..	3
Sagamore Mfg. Co.	..	64
Shove Mills	..	5
Stafford Mills	..	..
Stevens Mfg. Co.	29	..
Union Cotton Mfg. Co.	..	..
Weetamoe Mills	..	1

New England Textile Stocks

Quotations at "Public Sale" are based on last sales at Boston Public Auctions and Boston Stock Exchange. Bid and Asked prices are latest quotations of dealers.

	Public Sale	Bid	Asked
Am. Mfg. pfd.	60	57	60
Amoskeag	8½	..	..
Arlington	22½	22	24
Associated Textile	36½	34	37
Bates	64	64	66
Berkshire, Associates, com.	9	13	15
Berkshire Associates, pfd.	72	70	73
Biglow-Sanford, com.	48	..	..
Boott Mills	120¼	..	114
Edwards	80½	64	67
Esmond, pfd.	102	100	102
Farr Alpaca	70	68	71
Hamilton Woolen	40	38	42
Hill	18	14	18
Indian Orchard	20¼	20	25
Ludlow	136	133	136
Merrimack, com.	46¾	44	48
Nashua, com.	22	19	..
Nashua, pfd.	66	62	65
Naumakeag	85½	84	86
Newmarket	27	15	19
Otis	43	43	47
Pacific	21	..	..
Pepperell	86½	86	89
Plymouth Cordage	70½	70	72
York	8¾	5½	7

Textile Calendar

The Cotton-Textile Institute, Annual Meeting, Hotel Biltmore, New York, Oct. 15, 1930.

Committee D-13, American Society for Testing Materials, Fall Meeting, Hotel Kenmore, Boston, Mass., Oct. 16-17, 1930.

Southern Textile Association, Eastern Carolina Division, Fall Meeting, Durham, N. C., Oct. 17, 1930.

Ninth Southern Textile Exposition, Textile Hall, Greenville, S. C., Oct. 20-25, 1930.

Textile Division, A.S.M.E., National Meeting, Poinsett Hotel, Greenville, S. C., Oct. 22, 1930.

Philadelphia Textile Manufacturers' Association. Annual Dinner. Manufacturers' Club, Philadelphia, Oct. 23, 1930.

Southern Textile Association, Semi-Annual Meeting, Poinsett Hotel, Greenville, S. C., Oct. 24, 1930.

United States Institute for Textile Research, First Annual Meeting, New York City, Nov. 6, 1930.

The Textile Forum, N.A.C.M., overseers of carding, Boston (Mass.) Chamber of Commerce, Nov. 18, 1930.

Ninth National Exposition of Power and Mechanical Engineering, Grand Central Palace, New York City, Dec. 1 to 6, 1930.

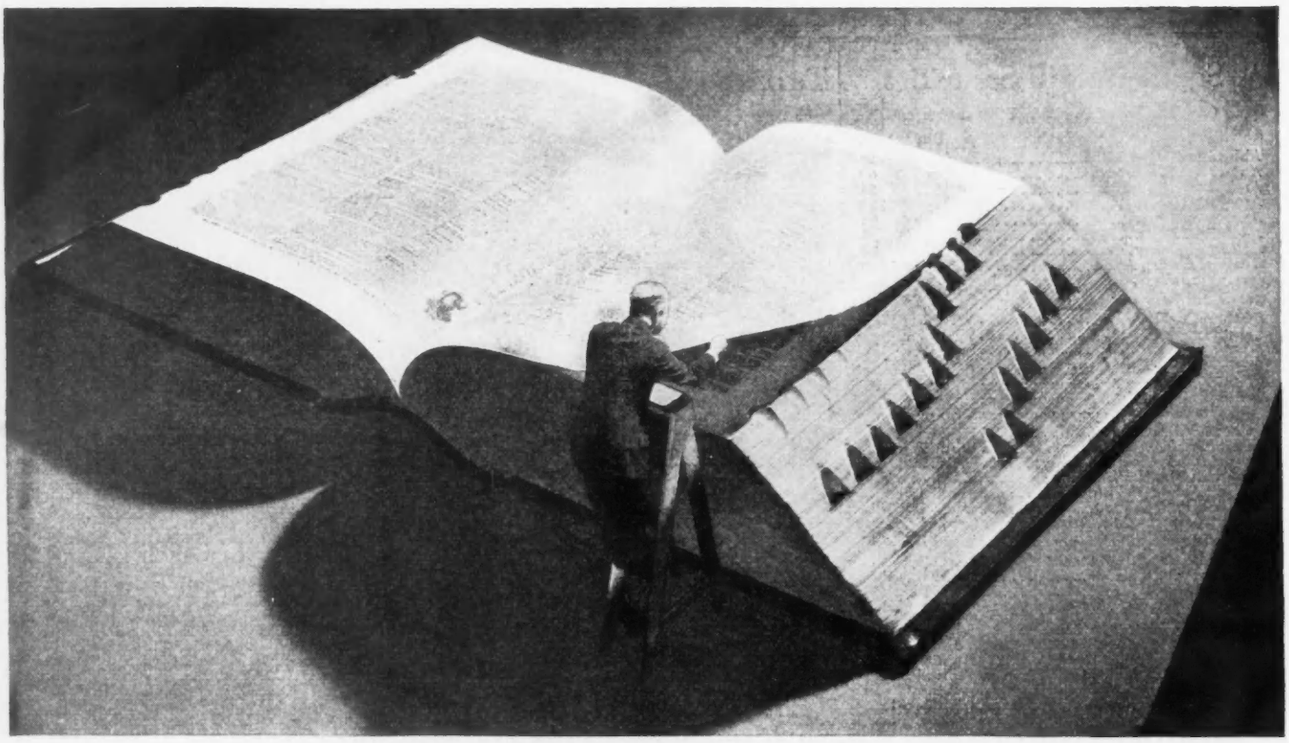
The Textile Forum, N.A.C.M., overseers of spinning, Boston (Mass.) Chamber of Commerce, Dec. 9, 1930.

The Textile Forum, N.A.C.M., master mechanics, Boston (Mass.) Chamber of Commerce, Jan. 13, 1931.

The Textile Forum, N.A.C.M., warp preparation and weaving, Boston (Mass.) Chamber of Commerce, Feb. 10, 1931.

The Textile Forum, N.A.C.M., overseers of finishing, Boston (Mass.) Chamber of Commerce, March 10, 1931.

Knitting Arts Exhibition, Commercial Museum, Philadelphia, April 13 to 17, 1931.



Let's take a look at this word
"OBSOLESCENCE"

Contrary to the dictionary, obsolescence is a *disease*. It affects all things mechanical in the same manner that various ailments disable those who have outlived their years of usefulness.

For us humans there is as yet no cure for obsolescence—we cannot replace old bones with new nor exchange a tottering gait for the proud stride of youth. Industry is more fortunate. It can keep itself young—in fact it cannot afford to grow old. Machines and methods too old for the pace of modern times must be discarded, scrapped, to make way for the improvements that keep plants young, productive and profitable.

In the Full-Fashioned Hosiery field much has been accomplished in the past five years to make a better product — faster and cheaper than ever thought possible. Mills that have kept abreast of these developments are enjoying profitable operation. Others, as you know, are experiencing difficulties.

Let us discuss these new developments with you now and explain how your equipment can be systematically modernized without a "major operation" on the treasury.

TEXTILE MACHINE WORKS
READING, PA.

The "READING"
Full-Fashioned Knitting Machine

Lighting Efficiency, Belt Maintenance and Lubrication Analyzed for S.T.A. Master Mechanics

(Continued from page 33)

unit of light. With 80% normal voltage the cost of each unit of light obtained is about 150% of normal. This 50% excess cost can be eliminated only by burning the lamps back at their rated voltage. In other words the only way to get the most light for your money out of lamps is to 'burn 'em up.'

"We can now show that the minimum cost of light is obtained when we burn lamps at *over-voltage* instead of under-voltage. At both 5% and 10% over-voltage the cost of light remains under 100% despite the rapid burn-outs that you would get."

Spot boxes were then used by Mr. Park in showing the effect of voltage in producing variations in the quality of light. It was shown that a 10-volt loss resulted in a 30% loss in candle-power in 100-watt lamps. The illuminated spot produced at 10 volts under-voltage was found to be quite yellow. This was said to be an important point when light is used for color work.

"Where we meet most voltage questions," Mr. Park went on, "is when there is the complaint of buying too many lamps. Usually instructions are issued to get some lamps of higher voltage so they'll last longer.

"Perhaps we are willing to sacrifice a little of the light to save on renewal cost, so we might use a 120-volt lamp instead of a 115-volt lamp. That will cut our renewal cost approximately in half. We can cut it in two again by using 125-volt lamps instead of 120-volt lamps. Our renewal cost is now only about 25% of what it would have been if we had used 115-volt lamps. Again, if we step up to 130-volt lamps we might not notice the decrease in light very much, and now our renewal cost is only 12½% of what it was at first.

"Just a few more steps and we would be using 230-volt lamps in place of 115-volt lamps. We might reduce the renewal cost to practically zero, but we would find that we had no light left.

"Most mills purchase their current at power rates for power purposes. Voltage fluctuations are expected when power is purchased at wholesale prices, and yet most mills do not attempt any regulation for the lighting circuits. Most mills order lamps for the highest expected voltage. This is wrong, because the only way to get the most from our lamps is literally to burn them up. Lamps should be purchased for the *average voltage* expected to prevail during burning hours. Data on this may be obtained by a new averaging voltmeter, which is intended to be connected between the lamp bulb and its socket by means of a special plug that is part of the instrument, and which will give the average voltage that has existed on the lamp during its burning hours."

Belt Maintenance Plan

Next on the program was an outline of the belt maintenance plan in effect in plants of The Kendall Co. W. W. McLeod, assistant general manager, Kendall Mills Division, presented a comprehensive paper which enumerated the purposes of a belt inspection and maintenance plan, as follows:

1. To keep the cost of belting at the lowest possible minimum by proper cleaning, dressing and inspection.
2. To maintain operation of machinery at all times.
3. To maintain the speeds of all machines at the standard set for each machine.
4. To maintain adequate records for accurate check on the wearing qualities or the economy of any particular best.

The conclusions drawn in Mr. McLeod's paper, which will appear in a later issue of Textile World, were that the best quality of leather is usually cheapest in the long run, that it pays always to buy waterproof belting for a cotton mill, and that, in general, heavy belts operated with slack tension are more economical than light belts run with tight tension.

John Fox, engineer, Duke Power Co., Charlotte, N. C., pointed out that recent studies had revealed that one place in which loss of speed occurs is in friction drives on looms. This was said to result also in loss of power. He asked Mr. McLeod what belt he would recommend for spinning-frame drives, and the latter replied that his company had standardized on three-inch two-ply belts for all spinning drives. It was recommended also that the belt dressing specified by the belting manufacturers be used in order that they could be held responsible in case of unsatisfactory results.

Lubrication

Following a short discussion of certain features in connection with the belt maintenance plan, a paper on lubrication of textile machinery was presented by H. L. Marlow, lubricating engineer, The Texas Co., Charlotte, N. C. Adequate lubrication was stressed as affording the best form of insurance against interruption of production schedules due to machinery break-downs, and the speaker discussed the major problems in connection with textile mill lubrication.

It was pointed out that, in the case of steam cylinder lubrication, for example, that the major companies in the petroleum industry have "gone a long way toward educating the consumer to the extent that he analyzes his own operations and consults with the engineers from these petroleum companies, whose business it is to analyze in detail the particular operation . . . and co-operate with the management in furnishing a steam cylinder lubricant that will afford the most efficient operation and prolong the life of the equipment in question." It was stated that the less moisture in the steam, the more animal compounds can be tolerated in cylinder oils, and it was also explained that boiler compounds, consisting of soda ash, potash, etc., have very destructive influence upon steam cylinder lubrication.

In handling lubricants, Mr. Marlow recommended that they be stored in a separate room from the operating departments, in order to avoid possible contamination of the greases and oils by foreign matter such as flying lint, dust, and etc. He also pointed out that many mills have the tendency to use too many kinds of lubricants when their problem could be simplified by consulting a competent lubricating engineer.

Discussion of Questions

The following question was submitted for discussion: Should any babbit, not equal to genuine, be used in motor bearings? It was the general opinion that the "best babbit that can be used is the cheapest." W. F. Humbert, engineer, Carolina Cotton & Woolen Mills Co., Spray, N. C., stated that about eight years ago he tried all kinds of substitutes, but came back to genuine babbit as being the only satisfactory kind of material.

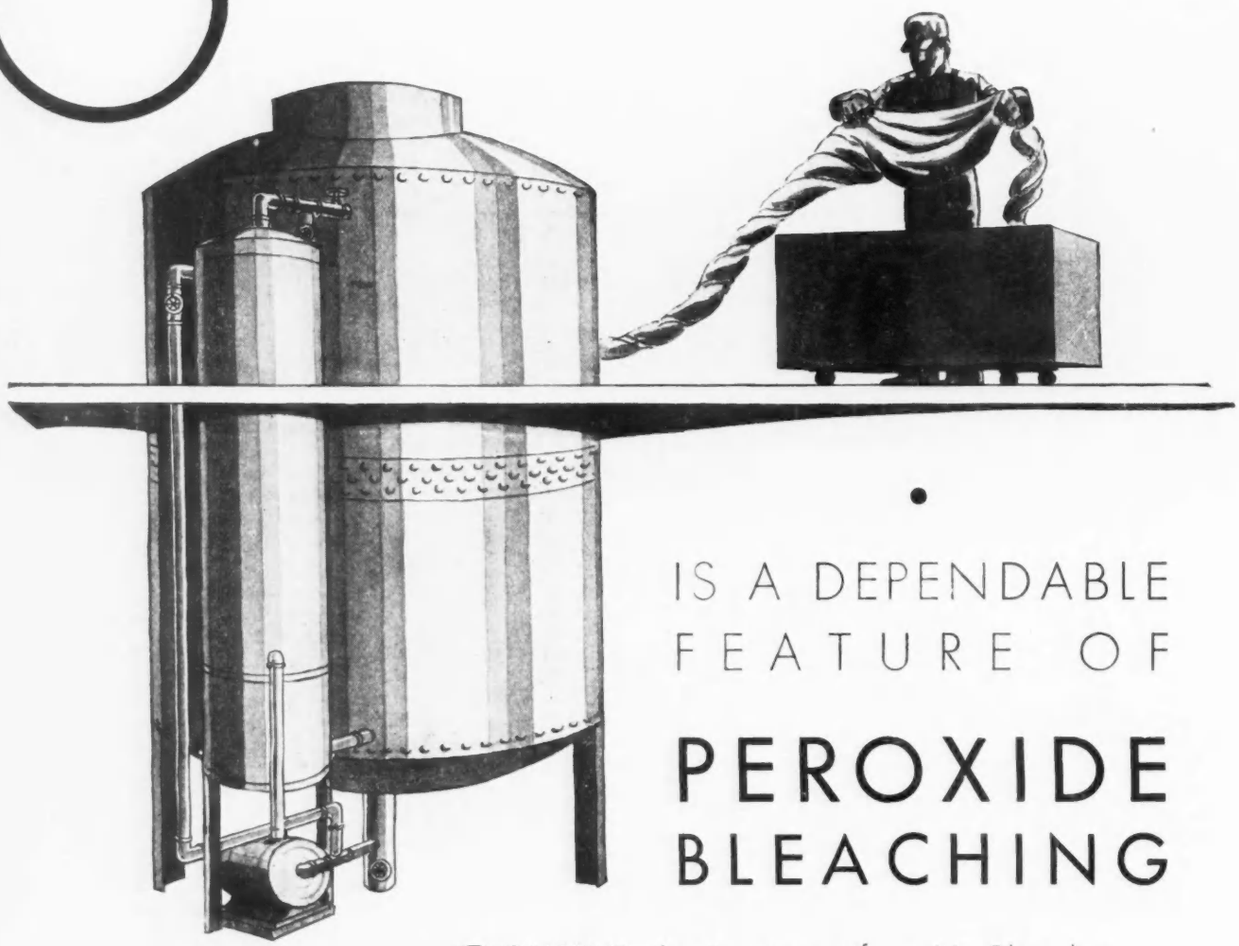
Two assets of the Cooper-Hewitt lights were said to be: (1) Not made smaller than 450 watt tubes, which makes it impossible for mills to impair their lighting by dropping down to lower wattage as is frequently done in the case of incandescent lamps; (2) Large light source is an advantage as it produces a very soft type of light with less shadows. Mr. Fox pointed out that the Cooper-Hewitt lights are very sensitive to voltage changes and should not be used without a voltage controller in the plant. Longest life of the tubes at The Kendall Co., Paw Creek, N. C., was found to be about three years, day and night running.

R. E. West, master mechanic, Arcadia Mills, Spartanburg, S. C., felt that it was advisable to purchase both high speed and carbon steel drills and cutters. H. H. Iler, mechanical engineer, Union Bleachery, Greenville, S. C., followed the policy of buying high speed drills and cutters because his records show that less replacements are required as compared with carbon steel tools.

Mr. West stated that, in his opinion, the mills should furnish all pipe wrenches over 14 in.; open end wrenches larger than ⅝ in., and hammers above 2 lb. in size. Mechanics would be required to purchase the smaller tools.

It was decided to hold the next meeting of the division in Greenville, S. C., instead of Atlanta, Ga., as previously announced.

UNIFORMITY



IS A DEPENDABLE FEATURE OF

PEROXIDE BLEACHING

R&H

ALBONE (25 vol.)
ALBONE "C"
(100 vol. electrolytic)
PERBORATES
HYDROGEN PEROXIDE
SOLOZONE (130 vol.)

CONSIDER this important fact, Mr. Bleacher.... Peroxide Bleaching always produces a good, marketable white.

Peroxide Bleaching always produces a good white for use as a dye bottom or base.

Write for information on adapting, at little expense, any kier for the R & H System of Peroxide bleaching. The cost of old and new methods are thereby equalized.

At the Southern Textile Exposition, Greenville, S. C, October 20th to 25th inclusive, visit our Booths Nos. 311, 312 and 313

The ROESSLER & HASSLACHER CHEMICAL CO.
INCORPORATED
10 East 40th Street, New York, N. Y.

Southern Manufacturers Solidly Support Institute's Night Work Proposal

(Continued from page 29)

many weeks there was no unemployment problem there, that cotton was maturing more rapidly than usual and that jobs were available for 50 to 100 more people than could be located in the country.

The amount of sound thinking that has been directed toward this phase of the problem, *plus* the fact that several outstanding South Carolina mills have recently discontinued night work without undue hardship resulting to their former night operatives, is distinctly encouraging and presages a diminishing volume of resistance on this score against the Institute's recommendation.

The intelligent attitude of manufacturers on this question is characterized by the following statement from John A. Law, president and treasurer, Saxon Mills, Spartanburg, S. C., who attended the meeting of the Institute's executive committee which submitted the resolution in its present form to the board of directors:

"Though realizing that large investment in cotton mills in proportion to annual value of product argues for continuous plant operation, I have always opposed night running, particularly where employment of women and minors is involved. Concern as to how night operatives could obtain employment elsewhere under existing deplorable agricultural conditions has occasioned my hesitancy in attempting to bring about this reform at the present time. But with daytime operation curtailed drastically, an apparent necessity for permanent reduction in production of cotton goods, see no justification of continuous night operation."

In addition to H. R. Fitzgerald, T. M. Marchant, L. W. Clark, C. E. Hutchison and other leading southern mill executives who have been quoted in these columns recently as giving their support to the movement, John H. Cheatham, president and treasurer, Georgia-Kincaid Mills, Griffin, Ga., characterizes the action of the Institute in recommending the elimination of night operation for women and minors as "the most constructive yet undertaken by the industry," while Will D. Briggs, Raleigh, N. C., president of The Cotton Manufacturers' Association of North Carolina, gives his hearty endorsement to the resolution.

Although W. A. Erwin, president, The Erwin Cotton Mills Co., Durham, N. C., was away from his office and could not be reached this week, the following excerpts from his letter to the editor of *The Charlotte Observer*, dated Sept. 27, explains his stand on the important question of night operation:

"We confirm telegram sent you this morning, reading, as follows: '*Durham Herald* this morning report our going to night work to take care of greatly improved business. This report absolutely erroneous, and will appreciate your not publishing. We are strongly opposed to night operation, and anxious for its elimination, as published in my statement *Daily News-Record*, New York, Sept. 24. We are not increasing our output in any way. To balance production one width are running a few looms at West Durham at night, shutting down corresponding number of other widths in the day operation, and this only temporary. Report as published hurtful to us, and to general situation. We see no signs of material improvement in business.'

"In explaination of the above will only add that with The Cotton-Textile Institute, which we are solidly behind, and with the majority of the cotton manufacturers in the country strongly endorsing the elimination of night work in cotton mills, it was very embarrassing to us to have the Durham newspaper come out with such a statement. We think it was published by them in an effort to show as bright a picture of the Durham economic situation as possible. As a matter of fact, we have been running at night a few looms on one width in one of our wide sheeting mills at West Durham because of the abnormal demand for this particular width, and to compensate for this have been shutting down throughout the day operation of a corresponding number of looms in widths for which there is at this season small demand."

The economic value of limitations on night work was stressed by Edward W. Swift, president of Muscogee Mfg. Co., Columbus, Ga., when he stated:

"Any reduction in night operation is, as an economic policy, an added curtailment benefit toward relief of a situation of serious overproduction in various grades of staple textiles. It will tend to restore the proper balance between demand and supply."

Riverside and Dan River Strike at Standstill

***From Southern Office,* TEXTILE WORLD**

With the strike situation at Riverside and Dan River Cotton Mills, Danville, Va., virtually at standstill this week, union officials were attempting to obtain suspension of injunctions prohibiting pickets from congregating at mill gates. Governor Pollard of Virginia offered to appoint group of mediators to arbitrate differences between management and former employes of the mills, but this was refused by H. K. Fitzgerald, president of the company. Two alleged communists were arrested on charge of inciting violence and disorder.

The mills, in rejecting Governor Pollard's offer, wired the governor in part as follows:

"Many thanks for your fine telegram. We believe that if you knew the mill situation and the history of our company that you would realize that so far as our company and its employes are concerned there is absolutely nothing to mediate. There is no real grievance, and, if there was, our employes well know that they can handle it through their own committees at any time. . . .

"The property of our company belongs to our stockholders, as does its good will and its enviable record of having always dealt liberally with its employes. The stockholders continue to shape its policies, and whether the mills run or not, they will have nothing to do with outside professional trouble makers. This much they owe not only to themselves but to the loyal employes with whom they have happily worked for 47 years."

Preparing for Southern Textile Exhibition

Thousands of yards of cotton cloth have been used in the decorations for the ninth Southern Textile Exposition, which will be held in Greenville, S. C., Oct. 20 to 25, and the roofs and walls of Textile Hall and its adjacent structures are covered with decorative materials.

W. G. Sirrine, president of Textile Hall Corp., announced this week that the next Southern Textile Exposition will be held during the week following the annual meeting of The Cotton-Textile Institute, in 1932. Indications point to an unusually successful show this year, and it was stated that the usual custom of staging the exposition in Greenville every other year would be followed.

Major G. Heyward Mahon will preside at the opening ceremony conducted on the stage of the hall at 10 o'clock Monday morning, Oct. 20. Governor-elect Ibra C. Blackwood, of Spartanburg, S. C., will deliver the principal address on the program.

Lowell Alumni of New York Plan Dinner

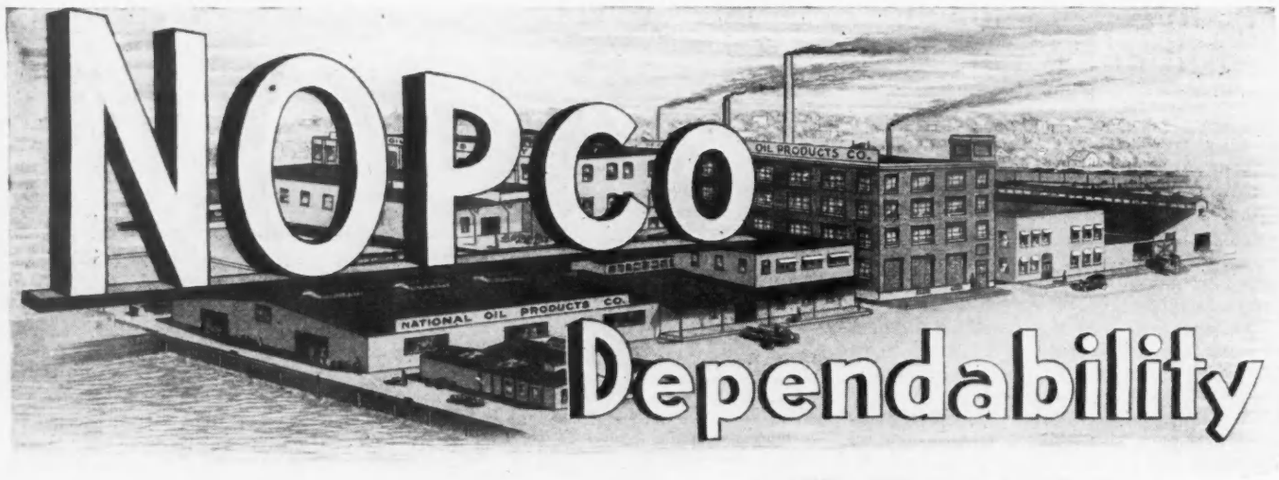
The New York Section of the Lowell Textile Institute Alumni held its first luncheon of the season on Oct. 2 at the Arkwright Club, 320 Broadway, and drew up plans for a dinner and dance to follow the Lowell-Upsala football game to be held in East Orange, N. J., on Nov. 15. Herbert A. Currier, of Waterman, Currier & Co., Inc., New York City, was appointed chairman of the committee on arrangements, and definite announcements regarding the location of the affair will be made later. The attendance at the luncheon was greater than at any previous time since the establishment of the New York Section.

Harry Graeff Joins Van Gelder Philadelphia Office

Harry Graeff has joined the selling organization of the Philadelphia office of the Van Gelder Yarn Co., Inc., located at 1015 Drexel Building. Mr. Graeff has covered the Philadelphia territory for many years. The Philadelphia office of the Van Gelder Yarn Co. is under the direct supervision of Clarence L. Buzby.

Cotton Yarn Group to Meet

Cotton Yarn Merchants Association will hold its annual meeting Oct. 14 at Penn Athletic Club, Philadelphia, announcement to this effect having been made by Frank E. Slack, secretary-treasurer.



A Series of Advertisements on Reasons Why Rayon Manufacturers Should Use TEXTOYL 1556.

Reason No. 4—

Good Penetration - - - Due to Low Viscosity

Low Take Up—Uniform Lubrication

Many soluble rayon oils are combinations of sulphonated and mineral oils—heavy, thick and viscous.

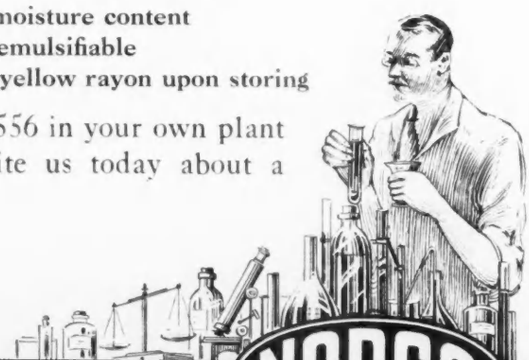
TEXTOYL 1556 is light, limpid and free-flowing. When tested on the Saybolt standard viscosimeter at 100° F., the viscosity is 120 seconds. To the best of our knowledge, this is the lowest viscosity of any soluble rayon oil on the market.

Little Affected by Temperature

TEXTOYL 1556 does not thicken readily at cool temperatures, but remains clear until chilled to 35° F., sometimes lower. Under ordinary mill temperature conditions, it gives even lubrication.

Other Advantages of TEXTOYL 1556

It is resistant to rancidity
It is resistant to oxidation
It is practically neutral in reaction
It has low moisture content
It is highly emulsifiable
It does not yellow rayon upon storing



Let our skilled technicians demonstrate TEXTOYL 1556 in your own plant on your own goods. Then judge for yourself. Write us today about a demonstration.

Ask for booklet completely describing TEXTOYL 1556

NATIONAL OIL PRODUCTS COMPANY, Inc.
EXECUTIVE OFFICES AND FACTORY **HARRISON, N. J.** BOSTON, MASS. CHICAGO, ILL. ST. JOHNS NEWFOUNDLAND

NOPCO

U. S. Plans Rayon Survey in Latin-America

With the aim of finding outlets for rayon yarn, the Bureau of Foreign and Domestic Commerce will conduct a survey of Latin-America as a potential market for rayon, it was announced in Washington. Grosvenor M. Jones, acting chairman of the bureau's questionnaire committee, has approved a questionnaire to be sent to all bureau officers in Latin-America. The questionnaire states that, rayon producers "facing a serious accumulation of stocks," have asked the aid of the government in getting data on the possibilities of Latin-America as a market.

The questionnaire, which was prepared by E. T. Pickard, chief of the Textile Division, continues in part:

"Copies of this questionnaire are being sent to the following offices of our bureau: Havana and San Juan; Mexico City, Guatemala City and Panama City; and Caracas, Rio de Janeiro, Montevideo, Buenos Aires, Santiago, Lima and Bogota; and to the consular officers at Guayaquil, Asuncion, La Paz, Georgetown, Tegucigalpa, San Salvador, San Jose, Corinto, Port au Prince, Santo Domingo and Kingston. Much of the value of this survey will depend on its promptness, so that we respectfully request that your report be prepared within two weeks after receipt of this letter.

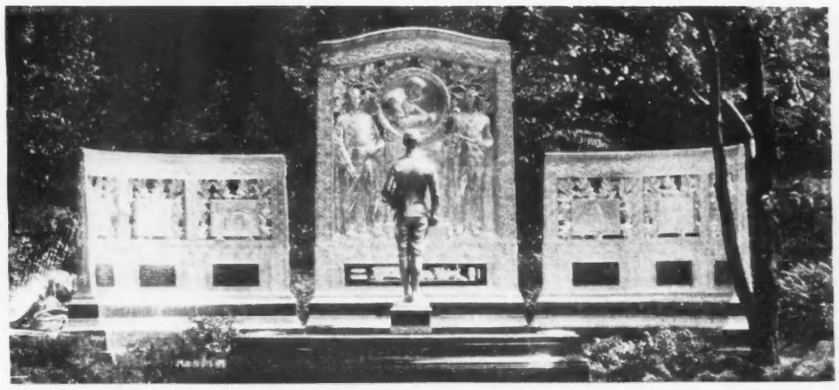
"Present production of rayon is considerably ahead of the market, since many of the plants have continued to produce for stock because of the expense and waste which would be entailed were they to discontinue the elaborate and accurately controlled chemical processes up to the spinning of the yarn. Immense investments in machinery and accumulated stocks tell briefly the story of the pressing demand for this survey."

Rayon, Synthetic Yarn Association Votes Against Dissolution

Continuation of the Rayon and Synthetic Yarn Association, despite the withdrawal some months ago of two outstanding member companies, was decided upon Wednesday at a meeting of about 14 rayon firms in New York. The meeting was in charge of Hiram Rivitz, president of Industrial Rayon Corp., who has been acting as chairman of the association; it was voted that Mr. Rivitz continue in that capacity; no other officers were elected.

Annual Meeting of Cotton-Textile Institute Next Wednesday

In addition to consideration of the night work recommendation which will be considered at the annual meeting of The Cotton-Textile Institute on Oct. 15, the accomplishments of the Institute during the year will be reviewed in the annual address of George A. Sloan, president. Twenty-five directors will be elected for terms of three years, succeeding board members whose terms expire at the end of the current Institute year. One other director is to be elected for one year to fill a vacancy on the board. Mills not members of the Institute have been invited to attend.



The George Westinghouse Memorial in Schenley Park, Pittsburgh, dedicated by the Westinghouse Memorial Association in honor of this industrial leader, October 6. The figure of George Westinghouse leaning over his drawing board is shown in the central medallion and on the side panels is depicted Mr. Westinghouse's achievements including the illumination of the Chicago World's Fair of 1893 by the alternating-current system; the hydro-electric plant at Niagara Falls, the steam turbine, alternating-current railroad electrification, the airbrake, and railroad switching and signaling systems. Upon all of this gazes an American youth with eager, yet reverent, interest. This event drew comment of many leaders of industry, among them James H. McGraw, Sr., Chairman McGraw-Hill Publishing Co., who said, "He was more than a great man—he was a true friend. He was an inspiration and an advisor to me on many occasions in those early days. He rose to power and remained the friend of thousands. The true significance of the memorial is that the spirit of George Westinghouse lives."

Those nominated by the Executive Committee for the three-year term include: W. D. Anderson, S. M. Beattie, J. W. Bowen, G. E. Buxton, Chas. B. Chase, Donald Comer, Philip Dana, F. A. Flather, J. M. Gamowell, C. L. Gilliland, R. H. I. Goddard, L. O. Hammett, Weston Howland, H. B. Jennings, H. A. Ligon, Jr., Leavelle McCampbell, J. A. McGrogor, V. M. Montgomery, W. B. Munson, Frank I. Neild, W. S. Pepperell, Benj. D. Riegel, H. Nelson Slater, Aug. W. Smith, and G. T. Thompson. George M. Wright of Great Falls, S. C., has been nominated to serve one year beginning Oct. 15, 1930.

John Bancroft, Jr., has joined The Cotton-Textile Institute for Joseph Bancroft & Sons Co., Wilmington, Del.; T. Scott Roberts has joined for Adelaide Mills, Anniston, Ala.; and Robert M. Jeffress has joined for King Cotton Mills, Burlington, N. C., it was announced.

Mercerized Yarn Standards Reaffirmed

Existing standards for the regain of mercerized cotton yarns have been reaffirmed without change for another year, beginning July 1, 1930, according to the Division of Trade Standards, Department of Commerce. This report summarizes results of a survey undertaken in cooperation with processors of cotton yarns to determine adherence and effectiveness of the establishment of this standard. Replies were received from 16 concerns, 10 of which stated they were using the commercial standard as the basis for readjustments in regain of all cases where adjustment is required. The other six firms stated that no adjustments had been necessary yet. Mercerizers replied in most cases that adoption of the standard had not proved of especial benefit to them.

Industrial Rayon May Enter Transparent Wrapping Industry

Expansion of the Cleveland plant of Industrial Rayon Corp., which would bring the rayon output there up to nearly 6,000,000 lb. annually, is planned, it was announced Wednesday by Hiram Rivitz, president of the corporation. The addition will entail an outlay of $250,000; increased equipment will bring the combined capacity of the Cleveland and Covington, Va., plants to about 13,000,000 lb. yearly. Mr. Rivitz added that the company is considering entering the transparent wrapping industry; increased call for transparent wrappers offers a big market.

McCuen Calls Trade-Wide Meeting of Cotton Men

With the aim of finding means to reestablish confidence in cotton and other textiles, D. E. McCuen, president of the American Cotton Shippers Association, has invited representatives of all branches of the cotton trade to attend a meeting at the St. Charles Hotel, New Orleans, Monday. Among those scheduled to attend are Secretary of Commerce Robert P. Lamont, Alexander Legge, chairman Federal Farm Board, Carl Williams, also a member of that board, and Eugene Meyer, new head of the Federal Reserve Bank.

Piedmont Colorists Meet Oct. 18

Annual meeting of Piedmont section, American Association of Textile Chemists and Colorists, will be held at Hotel Charlotte, Charlotte, N. C., Oct. 18. Feature evening session will be addressed by Robert Lassiter, Charlotte textile manufacturer, while technical papers and discussions of hosiery dyeing and finishing and dyeing of sulphur colors will follow.

AT THE SERVICE OF

INDUSTRIAL AMERICA

PRODUCTS MANUFACTURED BY CARBIDE AND CARBON CHEMICALS CORPORATION

ACETONE—Used as solvent for cellulose acetate and in the manufacture of many compounds.

BUTYL CARBITOL*—Solvent for nitrocellulose and resins.

BUTYL CELLOSOLVE*—Solvent for use in nitrocellulose lacquers and thinners.

CARBITOL*—Solvent for nitrocellulose, resins and dyestuffs.

CARBOXIDE*—Mixture of one part ethylene oxide and nine parts carbon dioxide, widely used as fumigant.

CELLOSOLVE*—Solvent for nitrocellulose and other organic compounds—extensively used in manufacture of nitrocellulose lacquers and dopes.

CELLOSOLVE* ACETATE—Nitrocellulose solvent which imparts a gloss to lacquer films and increases resistance to blushing.

DICHLOR ETHYL ETHER—Solvent for fats, waxes, greases and extremely resistant to hydrolysis. Useful in textile processes.

DIETHYLENE GLYCOL—Textile lubricant for wool and worsted, conditioning agent for silks and useful as a dye solvent.

DIOXAN—Solvent for cellulose acetate and a variety of resins.

ETHYLENE DICHLORIDE—An excellent compound for the extraction of oils and fats. Widely used as fumigant when mixed with carbon tetrachloride.

ETHYLENE GLYCOL—Used in preparation of low freezing dynamite and as a solvent for dyes in the printing of silks and other textile uses.

ETHYLENE OXIDE—A colorless gas, not dangerously toxic to man, highly toxic to insects. Used as fumigant, usually in conjunction with CO_2.

ISOPROPANOL—Used in preparation of medicinal or so-called white oils.

ISOPROPYL ETHER—An ideal solvent for oils and for fats, waxes and resins. Also used for extraction of dilute acetic acid.

METHYL CELLOSOLVE*—An excellent solvent for cellulose acetate.

METHANOL—Used in the manufacture of formaldehyde, as a solvent for resins and for anti-freeze solutions.

TRIETHANOLAMINE—Widely used as emulsifying agent in many industrial products.

VINYL CHLORIDE—Reagent for synthesis of various compounds.

VINYLITE* RESINS—Important constituents of protective paints and surface films. Can be moulded.

BUTANE—Used as a refrigerant in domestic type refrigerating systems and convenient fuel for industrial purposes.

ETHANE—Has the same density as air and used as fuel for lighter-than-air craft. Also used as refrigerant.

ETHYLENE—A gas used to hasten the coloring and ripening processes of fruits and vegetables.

PROPANE—Gas used for refrigerating systems where low temperatures are required.

ACTIVATED CARBON—Used for the adsorption of vapors present in low concentrations—largely used for the recovery of volatile solvents.

*Trade-mark Registered

BEHIND every Carbide and Carbon Chemicals Corporation product are years of research and experience — successful efforts on the part of one of the leaders in chemical manufacture to keep pace with the ever-increasing demands of industry.

Among our long list of products are some which have long been known and used in industry. There are others which are entirely new. Many which formerly could be had only as laboratory curiosities, are now obtainable in commercial quantities.

Our extensive research facilities, coupled with expert supervision in manufacture, assure you at all times of the highest quality — at prices in keeping with the most modern production methods.

We invite you to call on us whenever you have need for any of our products. A highly trained technical staff is at your service — ready to advise you as to the most practical and economical application of our compounds to your particular needs.

CARBIDE AND CARBON CHEMICALS CORPORATION

30 East Forty-second Street, New York

Unit of Union Carbide UCC *and Carbon Corporation*

Aberle May Become a Union Mill

Recent developments indicate that contractual relations between H. C. Aberle Co., Philadelphia, and the American Federation of Full-Fashioned Hosiery Workers will be negotiated, being the latest action taken in this case which first attained prominence in January of this year.

A ballot among the employees of the concern resulted in 77% of those turning in a ballot voting in favor of the plan advocating signing of formal agreement between the company and the union. Dr. George W. Taylor, arbitrator between the management and the workers in Aberle plant, stated that while this vote of the employees would not be conclusive it would have weight relative to its importance and a further conference will be held with financial interests connected with Aberle firm, customers, salesmen as well as of the management itself.

If this group acts in accordance with the employees then the long and conspicuous controversy at this plant will presumably be at an end.

Electrical Controls to Be Featured at Power Show

There seems to be no limit to the cunningness of the inventor in supplying electrical controls of all kinds. This will be apparent to those who visit the Ninth National Exposition of Power and Mechanical Engineering at the Grand Central Palace, New York, on Dec. 1 to 6.

More manufacturers of such devices than ever before have made early reservations for adequate space to exhibit many new devices, and modifications and improvements of old ones.

Charles V. Smillie Joins With Bond McEnany & Co.

Launching of a raw silk futures department through consolidation with Charles V. Smillie & Co., Inc., has been announced by Bond McEnany & Co. The new business was formally opened Monday under the management of Charles V. Smillie.

Bond McEnany & Co., through Allan Bond, became members of the National Raw Silk Exchange May 15, 1928.

Army Will Buy Serge

Depot Quartermaster, U. S. Army, Philadelphia, will open bids Oct. 16 to supply 7,500 yd., olive drab serge, 16 oz., for caps, to conform with specifications 8-4A.

Army to Buy Hat Cords

PHILADELPHIA.—Depot Quartermaster, U. S. Army, will receive bids Oct. 16 to supply them with hat cords. They will buy 2,352 for air corps, 57,388 for infantry and 2,811 for the medical corps.

Business News

E. F. Maher in New Offices

Edward F. Maher announces that his offices are now located at 11 W. 42nd St., New York City. He was formerly at 150 Liberty St., and handles accounts of David Lupton's Sons Co., Wm. Connors Paint Mfg. Co., C. O. Jelliff Mfg. Corp., and Cam Mfg. Co.

Agent For German Textile Machinery

Richard Hartmann, Chemnitz, Germany, announces the appointment of Herman H. Leonard, New York City, as their sole agent for the United States and Canada. The firm handles cotton spinning, worsted spinning, woolen and waste spinning machinery; machines for the manufacture of rayon, as well as having departments for manufacture of spinning rollers, spindles and spares.

Phillips Head of Shambow Shuttle Co.

P. T. Phillips, president of the American Textile Co., Inc., Pawtucket, R. I., was recently elected president of the Shambow Shuttle Co., manufacturers of shuttles. Marcus J. Offers will continue as secretary and treasurer of the company. It was announced that Mr. Phillips would retain his position as active head of the American Textile Co., Inc.

Worthington Pump Acquires Gilman Mfg. Co.

Worthington Pump & Machinery Corp., New York, has acquired the Gilman Mfg. Co., East Boston, Mass. This corporation is thus primarily expanding its line of pneumatic service to mines, quarries, contractors and industry — manufacturing under one head, with one responsibility, the Gilman line of rock drilling equipment which logically supplements the line of Worthington feather valve air compressors.

Alsop Engineering Co. Incorporates

The Alsop Engineering Co., New York, developers and manufacturers of Alsop "Hy-Speed" liquid processing equipment, has received its charter as a New York State corporation under the name of the Alsop Engineering Corp.

The officers of the corporation are: Samuel Alsop, president; Walter W. Freystedt, vice-president; Charles E. Crowley, treasurer; B. E. Alsop, secretary. All of these officials have been connected with the Alsop company for many years.

Alsop products include "Hy-Speed" portable electric mixers, internal pressure filters, vacuum electric bottle-fillers, portable electric transfer pumps, water filters, and "Alsop" glass lined mixing and storage tanks.

Permutit Co., of New York and Ward-Love Pump Merge

Organization of the General Water Treatment Corp., under laws of Delaware, as a holding company to merge the interests of the Permutit Co., New York, and the Ward-Love Pump Corp., Chicago, both specialists in equipment for softening water and its purification, as well as in chemical and allied lines, was announced in a letter to stockholders of the Permutit Co., from W. Spencer Robertson, president.

Firms in the merger will have combined assets of $4,000,000. Mr. Robertson will be president and Francis N. Bard, president of the Ward-Love Pump Corp., will be chairman of the board of directors. Other board members will be Vincent Bendix, Harry M. Durning, William M. Flook and Kenneth B. Schley.

Permutit was a pioneer in zeolite water softening in United States, and is the owner of a number of patents connected with this industry. Its plants are located at Brooklyn, N. Y., and Birmingham, N. J. Aside from executive offices in New York City, the firm has sales offices in 23 locations throughout the country. Ward-Love Pump Corp. has two plants, located Rockford, Ill., main offices being in Chicago.

Obituary

Patrick W. Kempsey

Patrick W. Kempsey, vice-president and treasurer of the Pen Argyl (Pa.) Silk Co., died Oct. 1 at his home in Easton, Pa., of a complication of ailments, aged 48 years. He had been ill for six weeks. Mr. Kempsey, who was born in Oxford, Warren County, N. J., had been engaged in the silk business since early boyhood. After being employed in several silk mills in Phillipsburg, he entered the employ of the Stewart Silk Mill in Easton in 1903, as assistant superintendent in the throwing department, later becoming superintendent. In 1920 he became associated with Charles J. Knowles in the Pen Argyl Silk Co., with which he was since connected. He is survived by his wife and three sons.

Charles H. Leininger

Charles H. Leininger, retired seamless hosiery manufacturer of Mohnton, Pa., died in that town Sept. 26, aged 75 years. He is survived by two daughters and four sons.

Emanuel Van Raalte

Emanuel Van Raalte, founder and former president of Van Raalte Co., New York, hosiery manufacturers, died of heart disease at his home in New York City. Mr. Van Raalte was born in New York City 65 years ago, and devoted most of his business life to hosiery manufacture. Following experience with numerous companies he organized Van Raalte Hosiery Co., which grew under his direction to be an important unit in the industry. He resigned as president of the company two years ago. Mr. Van Raalte was active in philanthropic work, being a director of Mt. Sinai Hospital, New York, and an active supporter of the Federation of Jewish Charities. He is survived by his widow, Mrs. Fannie Loewenwald Van Raalte, two daughters, Mrs. Jeannette Levison and Mrs. Sophie Karelsen, and two sons, Byron E. and Morton E. Van Raalte.

Clarence Dillenbeck

Clarence Dillenbeck, head of the firm of C. Dillenbeck & Sons, knit glove linings, Johnstown, N. Y., died suddenly last week at the city hospital. He had been prominent in the textile industry of Fulton County for many years.